State of Rhode Island and Providence Plantations
Department of Mental Health, Retardation and Hospitals

Rules and Regulations for Health and Wellness Standards for Organizations Providing Services or Support to Adults with Developmental Disabilities in Rhode Island

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PREFACE

The Division of Developmental Disabilities is responsible for the planning, development, and administration of a complete, comprehensive and integrated statewide program of services for adults with developmental disabilities. Individuals receiving services in the developmental disabilities system have the opportunity to choose services that best meet their needs, and support their capacity to live in their homes in the community. The fundamental goal of the Division's long range strategic plan is to support individuals in genuinely taking more personal control over their own lives, and to build and enhance meaningful community membership.

In carrying out this mission, the Division of Developmental Disabilities upholds these principles:

- Each individual is unique; supports and services shall be responsive to the individual and his/her particular situation;
- All of us develop and grow within a community of relationships; supports and services shall be designed to help build relationships;
- Each individual is deserving of respect; the Division strives to meet the highest standards of personal and professional integrity.

Supports and services in the developmental disabilities system are designed to provide a safe environment that allows individuals with developmental disabilities to meet their fullest potential and to be included in the everyday fabric of our society.

The Division of Developmental Disabilities has the responsibility to ensure the basic health and safety of adults with developmental disabilities who are receiving services and supports within the developmental disabilities system. The *Health and Wellness Standards* described herein are the minimum standards of care agencies shall adhere to in the provision of supports and services, and are incorporated by reference into the MHRH *Rules, Regulations, and Standards for Licensing of Agencies Providing Services or Support to Adults with Developmental Disabilities in RI* (RI General Laws Section 40.1-24-1, et seq.).

These Rules and Regulations for *Health and Wellness Standards for Organizations Providing Services or Support to Adults with Developmental Disabilities in Rhode Island* will be implemented in accordance with The Department of Mental Health, Retardation and Hospitals' implementation timeline with full implementation completed on January 1, 2007.

Agencies licensed by the Department of Mental Health, Retardation and Hospitals to provide twenty-four (24) hour residential supports and services to individuals with developmental disabilities have the responsibility to assist each individual to identify his/her health care needs and to obtain all necessary and appropriate services to meet those needs. The agency shall document the process used to assist the individual in identifying his/her health care needs, and shall obtain and maintain records from health care providers relative to the provision of such health care services. The nature and scope of the individual's health care needs, the recommendations to meet those needs, and the process for implementing said recommendations shall be documented in the Individualized Plan (IP).

If an individual is receiving services other than 24 hour residential support, the individual, his/her family as appropriate, and the agency shall determine and agree upon their respective roles in the provision of health care services and supports. The nature and scope of the individual's health care needs, the recommendations to meet those needs, and the process for implementing said recommendations shall be documented in the Individualized Plan (IP).

These Standards do not address all possible medical conditions as it is understood that medical circumstances will vary for each individual. The nature and scope of an individual's health care needs shall be identified through information gathered during the completion of health care screening and nursing assessments as specified in agency policy and consistent with any pertinent *Standards* described herein.

Note: The *Specialized Procedures* standards and requirements described herein apply only to agencies licensed by the Department of Mental Health, Retardation and Hospitals to provide services and supports to adults with developmental disabilities. These standards do not apply to care provided in nursing homes or hospitals, nor do they apply to care provided by family members.

Acknowledgement

The Division of Developmental Disabilities wishes to acknowledge and thank our colleagues in the Vermont Department of Developmental and Mental Health Services/Division of Developmental Services for their invaluable assistance and generosity in sharing their *Health and Wellness Standards and Guidelines,* and *Regulations Implementing The Developmental Disabilities Act of 1996*, which governs special care procedures performed by specially trained unlicensed personnel. This material has served as a template in the development of the *Health and Wellness Standards* described herein.

Statutory Authority

Authority for issuing these Rules and Regulations may be found in Rhode Island General Laws §40.1-24-1 *et seq.*

SECTION I

DEFINITIONS

1.1 **"*ASSIST AN INDIVIDUAL*"** means to support an individual to the extent necessitated by the individual's degree of disability and with consideration for the individual's right to provide informed consent to or refuse medical treatment, if competent.

1.2 **"*CONTROLLED SUBSTANCE"*** means a drug, substance or immediate precursor in Schedules I – V of Chapter 21-28, Section 21-28-2.08 of the Rhode Island General Laws, as amended (*Appendix A - Controlled Medication Formulary).*

1.3 ***"DELEGATION"*** by a Registered Nurse or Licensed Practical Nurse means transferring to competent, appropriately trained Direct Support Staff the responsibility to perform a specific nursing task or procedure in a specific situation.

1.4 ***"DEPARTMENT"*** means the Rhode Island Department of Mental Health, Retardation and Hospitals (MHRH).

1.5 **"*DIRECT SUPPORT STAFF"*** means unlicensed personnel who have received training in providing supports to adults with developmental disabilities, and who are employed by an agency licensed by the Department of Mental Health, Retardation and Hospitals as a provider of supports and services to adults with developmental disabilities. Direct Support Staff encourage attitudes and behaviors that enhance inclusion, and assist individuals with developmental disabilities to lead self-directed lives and contribute to their communities.

1.6 ***"LEGEND DRUG"*** means any drug that is required by law to be labeled: "Caution: Federal Law Prohibits Dispensing Without a Prescription" (*Appendix B - Rules and Regulations Governing the Disposal of Legend Drugs).*

1.7 ***"LICENSED HEALTH CARE PROVIDER"*** means a duly licensed physician, dentist, certified registered nurse practitioner, podiatrist, or other licensed health care providers authorized by law to prescribe medications.

1.8 ***"LICENSED NURSE"*** means a Registered Nurse or a Licensed Practical Nurse who holds a current license in good standing to practice nursing in Rhode Island.

1.9 **"*MEDICATION ERROR"*** means the administration of a medication or treatment other than as prescribed, or the failure to administer a prescribed medication or treatment. By way of example, and not in limitation, a medication error includes:

a. Omission of a dosage(s) or failure to administer
b. Incorrect dosage(s)
c. Incorrect medication(s)
d. Medication(s) given by incorrect administration route
e. Medication(s) given at the incorrect time
f. Medication(s) given to the wrong person
g. Any inappropriate use of medications
h. Failure to follow agency procedures for medication administration
i. Medication or treatment given without an order from a physician or other licensed health care provider.

1.10 **"*NURSING PROCESS"*** means a systematic, problem-solving approach to meeting the nursing and health care needs of an individual. Nursing interventions take place within the context of the nursing process. The nursing process is comprised of the following essential elements:

a. ***"ASSESSMENT/DATA COLLECTION"*** The Registered Nurse shall conduct a nursing assessment which includes a deliberate and systematic collection of data to determine an individual's current health status, including physical assessment, data analyses, problem identification, and development of a plan of care.

b. ***"NURSING DIAGNOSIS"*** Nursing diagnoses are concise statements of conclusions derived from assessment data collected and include the presenting medical diagnoses and the individual's unique nursing and health care needs. Nursing diagnoses are recorded in a manner that facilitates the nursing plan of care.

c. ***"PLANNING"*** The Registered Nurse shall develop a nursing plan of care based upon the data obtained during the assessment. The elements of the plan of care shall reflect data obtained as part of the individual's initial health care screen as well as subsequent assessments, and shall be congruent with the individual's unique health care needs. The plan of care provides guidance for Direct Support Staff in the provision of health care activities. Nursing plans of care shall be recorded, communicated to others, and revised as necessary according to the agency's written policy and procedure.

d. ***"INTERVENTION"*** The Registered Nurse shall intervene according to the nursing plan of care to implement nursing actions that promote, maintain, or restore wellness and prevent illness. The Registered Nurse shall ensure the implementation of the plan of care and may delegate all or portions of the implementation to the Licensed Practical Nurse or to appropriately trained Direct Support Staff in accordance with the requirements of the delegation process. The Licensed Practical Nurse may assist in the delegation process under the direction of the Registered Nurse. It is recognized that when the Licensed Practical Nurse works in a team relationship with the Registered Nurse, the Licensed Practical Nurse contributes significantly to each aspect of the nursing process. However, final responsibility for the nursing process and its application remains with the Registered Nurse.

e. ***"EVALUATION"*** The Registered Nurse shall evaluate and document the individual's response to the interventions outlined in the plan of care; revise the plan as necessary; and, identify the degree to which the expected outcomes have been achieved.

1.11 **"*PRACTICAL NURSING"*** Practical Nursing is practiced by Licensed Practical Nurses (L.P.N.'s). It is an integral part of nursing based on a knowledge and skill level commensurate with education. It includes promotion, maintenance, and restoration of health and utilizes standardized procedures leading to predictable outcomes which are in accord with the professional nurse regimen under the direction of a registered nurse. In situations where registered nurses are not employed, the licensed practical nurse functions under the direction of a licensed physician, dentist, podiatrist or other licensed health care providers authorized by law to prescribe. Each L.P.N. is responsible for the nursing care rendered (Rhode Island General Law Chapter 5-34).

1.12 ***"PROFESSIONAL NURSING"*** Professional Nursing is practiced by Registered Nurses (R.N.'s). The practice of professional nursing is a dynamic process of assessment of an individual's health status, identification of health care needs, determination of health care goals with the individual and/or family participation, and the development of a plan of nursing care to achieve these goals. Nursing actions, including teaching and counseling, are directed toward the promotion, maintenance, and restoration of health and evaluation of the individual's response to nursing actions and the medical regimen of care. The professional nurse provides care and support of individuals and families during periods of wellness and injury, and incorporates where appropriate, the medical plan of care as prescribed by a licensed physician, dentist or podiatrist or other licensed health care providers authorized by law to prescribe. Each R.N. is directly accountable and responsible to the consumer for the nursing care rendered (Rhode Island General Law Chapter 5-34).

Note: Professional Nursing and Practical Nursing as defined in the Rhode Island Nurse Practice Act, Chapter 5-34 of the R.I. General Laws, as amended, entitled "Nurses" (*Appendix C*). "Professional Nurse" is synonymous with "Registered Nurse". "Registered Nurse" is the title referenced herein.

1.13 ***"SPECIALIZED CARE PLAN"*** means a care plan that is developed for an individual with a developmental disability who requires a specialized procedure as defined herein. The agency shall ensure that a specialized care plan is attached to the Individualized Plan. The specialized care plan is developed by the Registered Nurse, and identifies the specialized procedure(s), and the nurse(s) responsible for conducting the training, determining competence, and providing ongoing monitoring and supervision of the Direct Support Staff.

1.14 ***"SPECIALIZED PROCEDURE"*** means a procedure that is necessitated by a specific medical need that an individual with a developmental disability would perform but for the individual's disability, or is a procedure that may be delegated provided that, in the determination of the Registered Nurse, the procedure may be safely performed by Direct Support Staff who have successfully completed the required training and have demonstrated competency in performing the task.

1.15 ***"SUPERVISION"*** means the provision of guidance by a Registered Nurse or Licensed Practical Nurse for the accomplishment of a nursing task or activity with initial direction of the task or activity and periodic inspection of the actual act of accomplishing the task or activity. Total nursing care of an individual remains the responsibility and accountability of the nurse.

Note: "Supervision" definition is based on the definition contained in the Rhode Island Department of Health's *Rules and Regulations for the Licensing of Nurses and Standards for the Approval of Basic Nursing Education Programs (R5-34-NUR/ED) (Appendix D).*

SECTION II

2.0 HEALTH CARE POLICIES AND PROCEDURES

2.1 Agencies shall maintain written health care and nursing policies and procedures that address all applicable areas as described herein.

2.2 Agencies providing residential supports and services shall have a policy and procedure outlining nursing support protocols for evening, weekend, and holiday coverage.

2.3 Agencies shall have a policy and procedure outlining the protocol to be followed if the assessment of a Registered Nurse indicates that a specialized procedure cannot be safely delegated. Such policy shall also address the steps that will be taken to ensure that the specialized procedure shall be performed by a Licensed Nurse until such time as it may be safely delegated.

2.4 Agencies shall maintain written policies and procedures providing clear guidance to Direct Support Staff regarding medical emergency response protocols and the utilization of 911. Such policies and procedures shall include the names and contact information for the agency nursing/administrative personnel who shall be notified in the event of a medical emergency situation. Such policies and procedures shall clearly stipulate that securing appropriate emergency treatment shall be the first and immediate priority.

2.0 applies to all Departmental licensed services in the developmental disabilities system.

3.0 EMERGENCY FACT SHEET

3.1 A current emergency fact sheet or other form shall be accessible and available in the agency files and any other relevant location as identified in the agency's policy and procedure. Information required includes, but is not limited to:

a. The individual's name, address, telephone number, and date of birth
b. Social Security number
c. Medicaid number, Medicare number, and/or other insurance information
d. Guardian and/or next of kin's name and telephone number
e. Name and telephone number of the primary licensed health care provider and other relevant health care providers/specialists
f. Medical diagnosis
g. Date of last annual physical
h. Tetanus, TB, and Hepatitis B immunization status
i. List of current medications and dosages
j. List of any known allergies
k. Protocol for emergency treatment, and advance directives (if applicable)
l. Person specific information, e.g., preferred communication method, dietary restrictions
m. Date the information was completed or updated.

3.0 applies to all Departmental licensed services in the developmental disabilities system.

4.0 INCIDENT REPORTS

4.1 Incident reports shall be maintained on serious incidents in accordance with duly promulgated Department of Mental Health, Retardation and Hospitals' regulations. Examples of such incidents include, but are not limited to:

a. An injury that requires medical care or treatment beyond routine first aid
b. Serious or repeated medication errors
c. Abuse, neglect, mistreatment
d. Death.

4.0 applies to all Departmental licensed services in the developmental disabilities system.

5.0 IMMUNIZATIONS

5.1 Influenza, pneumococcal, and other adult vaccination policies and protocols shall be developed and implemented by the agency in accordance with the most current recommendations of The Advisory Committee on Immunization Practices (ACIP) (*Appendix E*) for these vaccinations, and as recommended and ordered by the individual's licensed health care provider.

As the ACIP recommendations may change based on ongoing research, the DDD Office of Health Care will provide agencies with updated information regarding any changes in the recommendations referenced herein.

a. Influenza Vaccination: Annual vaccination as recommended and ordered by the individual's licensed health care provider
b. Pneumococcal Vaccination: Individuals age 65 and older, if not previously vaccinated, and other "at risk" individuals, as recommended and ordered by the individual's licensed health care provider
c. Immunization records are maintained with up to date Tetanus (every 10 years), PPD, and Measles/Mumps/Rubella (MMR date of immunization for anyone born after 1957, where record is available)
d. Hepatitis B vaccine and antibody testing must be offered in accordance with accepted primary care guidelines to all individuals receiving residential supports. Documentation of hepatitis status or date of vaccination must be present in the individual's health care record.

5.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

6.0 MENSES RECORDS

6.1 A record of menses shall be kept for women if determined as a need by the individual's licensed health care provider, or as indicated after an assessment by a Registered Nurse.

6.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

7.0 WEIGHT RECORDS

7.1 A record of monthly weights shall be kept if determined as a need by the individual's licensed health care provider, or as indicated after an assessment by a Registered Nurse.

7.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

8.0 PRESCRIBED NUTRITIONAL DIETS

8.1 Any weight loss/gain or other medically indicated diet shall be prescribed by a nutritionist, or by the individual's licensed health care provider.

8.1.1 The agency shall assist an individual to receive the services of a nutritionist when such services are ordered by the individual's licensed health care provider. When the individual believes such services would be beneficial but have not been ordered by the licensed health care provider, the agency shall assist the individual to obtain a referral from the individual's licensed health care provider.

8.1.2 A copy of the prescribed diet shall be maintained in the individual's health care record.

8.1.3 The agency shall assist the individual to follow the prescribed diet as ordered, and shall document the effectiveness in the individual's health care record.

8.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

9.0 DEFERRAL OF ROUTINE EXAMINATIONS AND/OR DIAGNOSTIC SCREENING AND TESTING

9.1 The individual's primary licensed health care provider, along with the individual, his/her family as appropriate, the agency's clinical team and licensed nursing staff, may decide that obtaining certain routine examinations or diagnostic screening/testing is too traumatic for the individual and the potential trauma outweighs the benefits.

9.1.1 Documentation of this decision is required to be included in the individual's health care record whenever a routine examination (e.g., gyn exam, dental exam) or diagnostic screening/testing (e.g., lab work, mammography) is deferred.

9.2 If such a decision is made, discussion shall then take place among the agency's clinical team and licensed nursing staff, including the individual, and his/her family as appropriate, regarding a desensitization plan with the goal of allowing testing in the future.

9.2.1 The desensitization plan and the outcomes shall be documented in the individual's health care record.

9.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

10.0 ANNUAL PHYSICAL EXAM

10.1 A physical examination shall be obtained annually, unless otherwise determined by the individual's primary licensed health care provider.

10.2 A copy of the physical exam report or documentation of the exam shall be included in the individual's health care record. At minimum, the documentation shall include:

a. The primary licensed health care provider's name
b. Date and findings of the physical examination
c. Results of lab work, diagnostic and/or cancer screening tests, as ordered
d. Any other recommendations.

10.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

11.0 DENTAL EXAMS

11.1 Dental examinations and cleanings shall be obtained as recommended by the American Dental Association, unless otherwise determined by the individual's licensed health care provider.

As the American Dental Association recommendations may change based on ongoing research, the DDD Office of Health Care will provide agencies with updated information regarding any changes in the recommendations referenced herein.

11.2 Documentation of the examination shall be included in the individual's health care record. At minimum, the documentation shall include:

a. The dentist's name
b. Date and findings of the dental exam
c. Any recommendations.

11.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family, as appropriate, and the agency, and as described in the Individualized Plan.

12.0 VISION/EYE HEALTH CARE

12.1 An initial comprehensive eye examination shall be obtained as recommended by the American Academy of Ophthalmology, unless otherwise determined by the individual's licensed health care provider.

As the American Academy of Ophthalmology recommendations may change based on ongoing research, the DDD Office of Health Care will provide agencies with updated information regarding any changes in the recommendations referenced herein.

12.2 Eye/vision exams should be conducted by an ophthalmologist or by an optometrist.

12.2.1 Individuals from the age of puberty to age 40 need to be examined again only if ocular symptoms, visual changes, or injury occur. The exception is for those individuals who are at risk of developing significant eye disease because of risk factors, e.g., chronic disease, family history, etc.

12.3 Eye/vision exams are indicated for individuals age 40 to 64 years;

12.3.1 The frequency of follow up shall be determined by the ophthalmologist or optometrist.

12.4 Individuals age 65 years or older should have an examination every 1-2 years.

12.5 Individuals with diabetes should be examined at minimum every year.

12.6 Glasses shall be provided as prescribed and kept in good repair.

12.6.1 The individual shall receive support to use the glasses as prescribed.

12.7 Documentation of the examination shall be included in the individual's health care record. At minimum, the documentation shall include:

a. The name of the ophthalmologist or optometrist
b. Date and findings of the eye/vision exam
c. Any recommendations.

12.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

13.0 AUDIOLOGY

13.1 Professional audiology examinations shall be obtained, if indicated, by an initial screening or by signs and symptoms of hearing loss, unless otherwise determined by the individual's licensed health care provider.

13.1.1 Such signs and symptoms shall be assessed and documented by a Registered Nurse and an examination scheduled as indicated.

13.2 Documentation of the examination shall be included in the individual's health care record. At minimum, the documentation shall include:

a. The name of the audiologist
b. Date and findings of the audiology exam
c. Any recommendations.

13.3 Hearing aids shall be provided as prescribed and kept in good repair.

13.3.1 The individual shall receive support to use the hearing aid as prescribed.

13.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

14.0 ORTHOPEDIC/PT/OT SERVICES

14.1 An initial orthopedic and/or physical therapy evaluation shall be obtained for individuals with mobility issues, musculo-skeletal or neurological conditions, and/or related types of disease, injury or illness, e.g., spinal disorders, spastic paralysis, etc.

14.1.1 The frequency of follow up examinations shall be determined by the licensed health care provider.

14.2 Documentation of a comprehensive PT and/or OT program to ensure maximum level of function shall be included where indicated by the individual's licensed health care provider.

14.3 Training for Direct Support Staff by a Physical Therapist or Occupational Therapist may be indicated, especially if the individual has medical conditions such as osteoporosis, or has an extensive therapy program.

14.4 Information regarding PT/OT therapy programs shall be included in the Individualized Plan.

14.5 Documentation of the initial, and any subsequent orthopedic/PT/OT consultation(s) and training for staff shall be included in the individual's health care record.

14.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

The PT/OT plan and staff training records shall also be maintained for any other licensed services in the developmental disabilities system when prescribed PT/OT programs are provided.

15.0 NEUROLOGICAL SERVICES AND SEIZURES

15.1 An initial diagnostic evaluation by a neurologist shall be obtained for individuals who have medications prescribed for seizures.

15.1.1 The frequency of follow up evaluations shall be determined by the neurologist, or by the primary licensed health care provider.

15.2 Documentation of the evaluation shall be maintained in the individual's health care record.

15.3 A seizure record shall be maintained in the individual's health care record. The seizure record shall include:

a. Date and time that the seizure occurred
b. Antecedent
c. Duration
d. Type of seizure
e. Post-seizure status.

15.4 Blood levels of seizure medications shall be obtained as determined by the individual's licensed health care provider.

15.4.1 Lab results shall be recorded and maintained in the individual's health care record.

15.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

Seizure records shall also be maintained for any other licensed services in the developmental disabilities system when medications prescribed for seizures are administered.

16.0 LAB AND OTHER DIAGNOSTIC/SCREENING TESTS

16.1 Certain lab tests (blood work) and other diagnostic testing are indicated by diagnosis, age, medications received, and family history.

16.1.1 The types of lab and diagnostic testing and the frequency should be recommended by the primary licensed health care provider after consultation with:

a. The individual, and his/her family as appropriate
b. Agency clinical/nursing staff responsible for assuring that the individual's health care needs are being met.

16.2 Baseline lab testing (e.g., CBC, Blood chemistry, LFT's, FBS, etc.) shall be obtained, unless otherwise indicated by the individual's licensed health care provider. This testing is frequently done as part of a routine annual physical exam.

16.3 Other lab testing is indicated by medications, e.g., seizure, cardiac, psychotropic medications; age; or other risk factors such as family history.

16.3.1 The frequency of testing shall be determined in consultation with the individual's licensed health care provider.

16.4 Documentation of all studies completed and the results shall be included in the individual's health care record.

16.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

17.0 CANCER SCREENING

17.1 The American Cancer Society's (ACS) current recommendations regarding baseline and continuing testing shall be the standards followed, unless otherwise determined by the individual's licensed health care provider.

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As the ACS recommendations may change based on ongoing research, the DDD Office of Health Care will provide agencies with updated information regarding any changes in the recommendations referenced herein.

17.1.1 <u>Colon Cancer Screening</u>: Colon cancer screening should be obtained for men and women 50 years and older. Starting at age 50, both men and women should have:

a. Yearly fecal occult blood test (FOBT) and flexible sigmoidoscopy every five (5) years; or

b. Fecal occult blood test yearly (acceptable but not preferred); or
c. Flexible sigmoidoscopy every five (5) years.
d. Double contrast barium enema every five years; or
e. Colonoscopy every ten (10) years.

Note: Flexible sigmoidoscopy together with fecal occult blood test is preferred when compared to fecal occult blood test or flexible sigmoidoscopy alone.

17.1.2 All positive tests should be followed up with colonoscopy.

17.1.3 Prostate Cancer Screening: Every man 40 years and older should:

a. Have a DRE (digital rectal exam) as part of his annual physical exam
b. In addition to the DRE, the ACS recommends that men 50 years and older have an annual PSA (prostate specific antigen) blood test.

17.1.4 Breast Cancer Screening:

a. Asymptomatic women should have a screening mammogram by age 40
b. Women age 40-49 should have a mammogram every 1-2 years
c. Women age 50 and older should have a mammogram every year
d. In addition, a clinical physical examination of the breast is recommended every 3 years for women 20 to 40 years of age, and every year for those over age 40.

17.1.5 Cervical Cancer Screening:

a. A Pap test should be performed annually with a pelvic examination in women who are, or have been sexually active or who are 18 years or older
b. After three (3) or more consecutive annual examinations with normal findings, the Pap test may be performed less frequently at the discretion of the licensed health care provider.

17.1.6 Skin Cancer:

a. It is recommended that the licensed health care provider examine the individual's skin during the annual physical exam
b. Direct Support Staff shall be instructed to be aware of any changes in the individual's skin or in existing growths, and shall report any changes to the Licensed Nurse
c. All such changes shall be assessed and documented by the Licensed Nurse, and reported to the licensed health care provider.

17.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

18.0 ALTERNATIVE/COMPLEMENTARY THERAPIES

18.1 Alternative and complementary healthcare and medical therapies are those that are not currently an integral part of conventional health care. Conventional healthcare refers to medicine as practiced by a Physician, Nurse Practitioner, or Physician's Assistant.

18.1.1 Alternative and complementary healthcare and medical therapies may include:

a. Chiropractic therapy
b. Homeopathic and herbal medicines
c. Acupuncture
d. Naturopathy
e. Mind/body therapy.

18.2 All therapies need the input of the primary licensed health care provider. Any medications, e.g. herbal or homeopathic, require a written order from the primary licensed health care provider.

18.3 Documentation of the rationale for the therapy, and a written order from the primary licensed health care provider shall be maintained in the individual's health care record.

18.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

A written order from the primary licensed health care provider shall also be maintained for any other licensed services in the developmental disabilities system when alternative or complementary therapies are provided.

19.0 ADAPTIVE AND/OR MEDICAL EQUIPMENT

19.1 Agencies shall assist individuals to obtain adaptive and/or medical equipment (e.g., wheelchairs, braces, communication devices, pulse oximetry units, glucose monitors, etc.) as needed and to maintain such equipment in good repair.

19.2 Regular assessment for proper fit, usage, function, and safety shall also be completed.

19.0 applies to all Departmental licensed 24 hour residential services in the developmental disabilities system; and to licensed residential services other than 24 hour as determined and agreed upon by the individual, his/her family as appropriate, and the agency, and as described in the Individualized Plan.

SECTION III

20.0 DELEGATION AND SUPERVISION BY A LICENSED NURSE

20.1 The Licensed Nurse delegating a task or procedure is responsible and accountable for:

a. The supervision of the Direct Support Staff to whom a task or procedure is delegated
b. The quality of the nursing care provided to the individual with developmental disabilities through the process of delegation.

20.2 The Licensed Nurse shall delegate and supervise in accordance with the requirements of Sections 10.1, 10.2, and 10.3 of the RI Department of Health's *Rules and Regulations for the Licensing of Nurses and Standards for the Approval of Basic Nursing Education Programs (R5-34-NUR/ED) (Appendix D).*

20.3 Delegation decisions shall be made based on the specific needs of each individual.

20.4 The Licensed Nurse retains accountability for appropriate nursing delegation decisions, therefore if in the nurse's judgment a task or procedure cannot be safely delegated, she/he shall have the authority to make that determination and shall:

a. Document in writing to her/his supervisor the rationale for this decision
b. The steps that have been taken to ensure that the health and safety of the individual with developmental disabilities has not been compromised
c. Specific recommendations as to how the situation may be addressed in order to ensure that the individual receives the supports and services she/he needs

20.4.1 At no time shall an individual with developmental disabilities be placed in a situation in which her/his health and safety needs are not being met.

20.5 The nursing process shall not be delegated in full or in part. The following aspects of the nursing process shall be performed by a Registered Nurse:

a. Conducting a full physical assessment
b. Formulation of nursing diagnoses derived from the assessment data
c. Development of a plan of care
d. Evaluation and documentation of the individual's response to the interventions outlined in the plan of care
e. Revision of the plan as necessary
f. Identification of the degree to which the expected outcomes have been achieved.

20.6 The Registered Nurse shall make an assessment of the individual's specific health care needs prior to delegating a task or procedure.

20.7 The nursing task or procedure shall be one that a reasonable and prudent nurse, utilizing sound nursing judgment, would determine to be appropriate for delegation, having given consideration to at least the following:

a. The individual for whom the care is being provided has a stable, chronic condition
b. The treatment outcomes are predictable and do not require Direct Support Staff to exercise nursing judgment

c. The task or procedure may be properly and safely performed by Direct Support Staff without jeopardizing the welfare of the individual with disabilities.

20.8 Direct Support Staff shall have documented skill competencies necessary for the proper performance of the task or procedure and shall perform each delegated task in accordance with instructions given by the delegating nurse.

20.8.1 Prior to delegation, the Registered Nurse shall evaluate the Direct Support Staff person's competency to perform the task or procedure.

Note: Technical assistance in the resolution of nursing delegation issues shall be provided by the DDD Office of Health Care upon request.

20.0 applies to all Departmental licensed services in the developmental disabilities system.

21.0 DOCUMENTATION STANDARDS AND MAINTENANCE OF HEALTH CARE RECORDS

21.1. Health care record information includes, but is not limited to:

a. Licensed health care provider orders and progress notes
b. Continuity of Care Forms
c. Lab and diagnostic testing results
d. Nursing notes
e. Nursing assessments
f. Nursing plans of care
g. Specialized care plans
h. Medications sheets
i. PT/OT/Speech therapy plans/progress notes.

21.2 All health care information shall be documented in blue or black ink.

21.3 Entries by Clinical Professionals, Direct Support Staff, and any other individuals documenting in the record shall include:

a. Date
b. Time
c. Full signature of the person making the entry
d. Title of the person making the entry.

21.4 Corrections in health care information shall be made by drawing a single line through the incorrect statement/word, writing "omit", initialing above the error, and then entering the correct documentation.

21.5 Late Entry: When a late entry is necessary, the following information shall be documented:

a. Current date and time
b. Documentation information
c. Entry for date and time of occurrence
d. Full signature of the person making the entry.

21.6 Nursing Assessments for individuals who are receiving residential supports shall be completed in accordance with the following:

21.6.1 At minimum, the Registered Nurse shall complete and document the findings of a nursing assessment on an annual basis.
21.6.2 An assessment shall also be completed and documented whenever there is a significant change in the individual's health status; or, as determined by the Registered Nurse based on the nature and scope of the individual's health care needs.
21.6.3 Nursing Assessments for specialized procedures shall be conducted in accordance with the requirements of 31.2, 37.2, and 37.3 as described herein.

21.7 Nursing Progress Notes for individuals who are receiving residential supports shall be completed in accordance with the following:

21.7.1 The Licensed Nurse shall document nursing progress notes or summaries in accordance with the agency's written policy.
21.7.2 The frequency of documentation shall be determined by the nature and scope of the individual's health care needs, and the agency's policy and procedure for documentation.
21.7.3 Appropriate documentation shall be maintained whenever there is a significant change in the individual's health care status.
21.7.4 Nursing Progress Notes for specialized procedures shall be documented in accordance with the requirements of 37.2 and 37.3 as described herein.

21.8 All health care information shall be placed in the individual's record in reverse chronological order.

21.9 The RI Department of Health's *Continuity of Care Form* shall be used for any and all:

a. Medical appointments
b. Referrals to home care agencies
c. Hospitalizations
d. Nursing home admissions
e. Other relevant medical transfers or referrals.

21.10 Health care records shall be kept for a minimum of seven years after the individual leaves the agency.

21.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other Departmental licensed services in the developmental disabilities system when health care and nursing services are provided.

22.0 DIRECT SUPPORT STAFF TRAINING STANDARDS

22.1 Agencies shall have written policies and procedures for ongoing health care in-service training for all Direct Support Staff in accordance with the requirements outlined herein.

22.2 Nursing staff shall delegate only to Direct Support Staff who have received appropriate training and have demonstrated competencies in each area of training.

22.3 Direct Support Staff shall be considered competent upon documentation of satisfactory completion of each training module.

22.3.1 Satisfactory completion and documentation of training shall include demonstration as well as knowledge of the delegated task or procedure.

22.0 applies to all Departmental licensed services in the developmental disabilities system.

23.0 TRAINING AND COMPETENCY REQUIREMENTS FOR NEW DIRECT SUPPORT STAFF

23.1 New Direct Support Staff shall participate in the Department of Mental Health, Retardation and Hospitals' ("the Department") standardized and approved *Health Care Orientation Curriculum for Direct Support Staff* (*Appendix F*).

23.1.1 Such training shall be coordinated and provided by the Department or the Department's authorized agent.

23.1.2 New Direct Support Staff shall not be permitted to administer medications until they have successfully completed the Department's standardized and approved Medication Administration Training & Practicum module.

23.2 The Department's standardized and approved *Health Care Orientation Curriculum for Direct Support Staff* includes the following training modules:

a. General Overview of a comprehensive set of medical principles/procedures
b. Standard Precautions/Bloodborne Pathogens /Infection Control/OSHA
c. Wellness/Prevention of Illness
d. Signs and Symptoms of Illness/Injury
e. Basic First Aid/Emergency Care
f. Medication Administration Training & Practicum.

23.3 Competent resource personnel within the health care field may participate as instructors for the *Health Care Orientation Curriculum for Direct Support Staff.* Such personnel may include:

a. Registered Nurses or Licensed Practical Nurses who hold a current Rhode Island license in good standing, and have two (2) or more years of nursing experience
b. Pharmacists who have two (2) or more years of experience in their field may participate as instructors in the medication administration component of the curriculum

23.3.1 All instructors shall have documented experience in teaching adults, and shall provide a resume to the Department or the Department's authorized agent.

23.4 All new Direct Support Staff shall be required to complete Modules A through E of the *Health Care Orientation Curriculum for Direct Support Staff* as described in Section 23.2, prior to being permitted to work alone with an individual.

23.4.1 Documentation of successful completion of Modules A through E of the *Health Care Orientation Curriculum for Direct Support Staff* shall be placed in the employee's personnel file.

23.4.2 A copy of the certificate of completion shall also be placed in a location that is readily accessible to the delegating Licensed Nurse.

a. Such location shall be determined according to the agency's policy.

23.0 applies to all Departmental licensed services in the developmental disabilities system.

24.0 REQUIRED ANNUAL TRAINING

24.1 On an annual basis, all Direct Support Staff shall receive training and demonstrate competency in the following areas:

a. Standard Precautions/Bloodborne Pathogens/Infection Control/OSHA*
b. Wellness/Prevention of Illness*
c. Signs & Symptoms of Illness and Injury*
d. Basic Health Care Treatments
e. Basic First Aid/Emergency Care*
f. Nursing/Health Care Policies and Procedures
g. Nutrition/Food Handling
h. Personal Hygiene
i. Adaptive Equipment, as applicable and relevant to the needs of the individuals supported by the agency
j. Seizure Precautions, as applicable and relevant to the needs of the individuals supported by the agency*
k. Communication and Compliance with Standard Documentation*.

24.2 Training modules denoted by an asterisk (*) shall be conducted using the Department's standardized and approved curriculum as contained in the *Health Care Orientation Curriculum for Direct Support Staff*.

24.2.1 Agencies shall be required to cover all of the material in the curriculum, and may then expand the training to add additional material based on the specific needs of the individuals supported by the agency.

24.3 Competent resource personnel within the health care field may participate as instructors for the Required Annual Training in those areas that reflect their scope of practice. Such personnel may include:

a. Registered Nurses or Licensed Practical Nurses who hold a current Rhode Island license in good standing, and have two (2) or more years of nursing experience
b. Pharmacists; nutritionists/dieticians; physical therapists, occupational therapists, speech and language therapists, and other disciplines as approved by the Department.

24.3.1 Instructors shall have documented experience in teaching adults, and a minimum of two (2) years of experience in their respective fields.

24.3.2 Documentation of the instructor's qualifications shall be maintained in her/his personnel file.

24.3.3 If the instructor is not an employee of the agency, and is engaged by the agency as an independent contractor, the instructor qualifications information shall be maintained in a training consultant file.

24.4 Basic First Aid/Emergency Care shall be taught by a Registered Nurse or other qualified instructor.

24.4.1 For non-nursing personnel, documentation of the instructor's completion of an approved course (e.g., American Red Cross) shall be placed in her/his personnel file.

24.4.2 If the instructor is not an employee of the agency, and is engaged by the agency as an independent contractor, the instructor qualifications information shall be maintained in a training consultant file.

24.5 Documentation of satisfactory completion of the required annual training and competency in all of the areas, as applicable, shall be placed in the Direct Support Staff person's personnel file.

24.5.1 Copies of the competency assessments shall also be placed in a location that is readily accessible to the delegating Licensed Nurse

a. Such location shall be determined according to the agency's policy.

24.6 All Registered Nurses, Licensed Practical Nurses, and Direct Support Staff shall complete an approved course (e.g., American Heart Association; American Red Cross) in Cardio-Pulmonary Resuscitation (CPR).

24.6.1 Documentation of CPR course completion, and a copy of a current certificate or completion card that is renewed, at minimum, every two years shall be maintained in the employee's personnel file.

24.0 applies to all Departmental licensed services in the developmental disabilities system.

25.0 MEDICATION ADMINISTRATION COMPETENCY VERIFICATION FOR EXISTING DIRECT SUPPORT STAFF

25.1 Direct Support Staff who have worked for an agency for at least two (2) years at such time as these Standards are promulgated, and who have received training in medication administration, shall have one (1) year to complete the Department's approved medication administration training curriculum and obtain a certificate of competency, or in the alternative, may receive a certificate of competency qualifying them to continue medication administration if the Registered Nurse documents that the Direct Support Staff person has received medication administration training and has displayed the appropriate competencies to carry out the procedure.

25.2 Documentation of satisfactory completion of the Department's approved medication administration training and a certificate of competency, or a qualifying certificate of competency signed by a Registered Nurse, shall be placed in the employee's personnel file.

25.2.1 A copy of the competency assessment shall also be placed in a location that is readily accessible to the delegating Licensed Nurse.

a. Such location shall be determined according to the agency's policy.

25.3 Direct Support Staff who have worked for a licensed agency for less than two (2) years at such time as these Standards are promulgated, shall have six (6) months to complete the Department's approved medication administration training curriculum and receive a certificate of competency.

25.4 Documentation of satisfactory completion of the Department's approved medication administration training and a certificate of competency shall be placed in the employee's personnel file.

25.4.1 A copy of the competency assessment shall also be placed in a location that is readily accessible to the delegating Licensed Nurse.

a. Such location shall be determined according to the agency's policy.

25.5 All Direct Support Staff shall be required to have a semi-annual medication administration competency assessment completed and documented by a Licensed Nurse within the agency

.

25.5.1 The competency assessment shall be placed in the employee's personnel file.

25.5.2 A copy of the competency assessment shall also be placed in a location that is readily accessible to the delegating Licensed Nurse.

a. Such location shall be determined according to the agency's policy.

25.0 applies to all Departmental licensed services in the developmental disabilities system.

26.0 SPECIALIZED PROCEDURES COMPETENCY VERIFICATION FOR EXISTING DIRECT SUPPORT STAFF

26.1 Direct Support Staff who have worked for an agency for at least two (2) years at such time as these Standards are promulgated, and who have been trained and have performed specialized procedures, may continue to perform such procedures if the Registered Nurse, utilizing the Department's standardized competency assessment form, documents that the Direct Support Staff have displayed the necessary competencies to perform the specialized procedures.

26.2 Documentation of competency for each procedure to be performed, and for whom the procedure may be performed, shall be placed in the employee's personnel file.

26.2.1 A copy of the competency assessment shall also be placed in a location that is readily accessible to the delegating Licensed Nurse.

a. Such location shall be determined according to the agency's policy.

26.3 Direct Support Staff who have worked for an agency for less than two (2) years at such time as these Standards are promulgated shall complete specialized procedures training in accordance with all requirements of section 34.0 as described herein.

26.4 Documentation of satisfactory completion of the training and competency assessment for each procedure to be performed, and for whom the procedures may be performed, shall be placed in the employee's personnel file.

26.4.1 A copy of the competency assessment shall also be placed in a location that is readily accessible to the delegating Licensed Nurse.

a. Such location shall be determined according to the agency's policy.

26.0 applies to all Departmental licensed services in the developmental disabilities system.

27.0 MEDICATION ADMINISTRATION AND TREATMENT STANDARDS

27.1 Medications and treatments shall be stored safely, securely and properly, following the manufacturer recommendations and the agency's written policy.

27.2 Pharmacies dispense medications in containers that meet legal requirements. Medications shall be kept stored in those containers.

27.2.1 An exemption from storage in original containers is permitted if using a pre-poured packaging distribution system (e.g., medi-set).

27.3 A corrected label, corresponding to the medication administration sheet, shall be obtained as directed by the Licensed Nurse, for any medication change orders.

27.4 Medications shall be administered by Direct Support Staff in accordance with the following requirements:

27.4.1 New Direct Support staff shall:

a. Complete the Department's approved *Health Care Orientation Curriculum for Direct Support Staff* medication administration training and practicum in accordance with the requirements of Section 23.1 as described herein
b. Have an assessment of competency completed by a Registered Nurse within the agency
c. Have a certificate of competency signed by the Registered Nurse completing the assessment.

27.4.2 All Direct Support Staff administering medications shall complete the Department's approved *Health Care Orientation Curriculum for Direct Support Staff* medication administration training and/or have competency documented by a Registered Nurse in accordance with the requirements of Section 25.0 as described herein.

27.4.3 Medication administration shall be delegated to Direct Support Staff by a Licensed Nurse in accordance with the requirements of Sections 20.1 and 20.2 as described herein.

27.5 Medication sheets shall be maintained by the agency for all individuals who do not self-administer their medications.

27.6 Medication sheets shall include, at a minimum:

a. Name of the individual to whom the medication is being administered
b. Clear record of the medication(s) name
c. Dosage
d. Frequency
e. Route of administration

f. Date of administration
g. Time of administration
h. Any known medication allergies or other undesirable reaction
i. Any special considerations in taking the medication, e.g., with food, before meals, etc.
j. The initials of the staff person(s) administering the medication.

27.7 The medication sheet shall have a signature sheet of all staff authorized to administer medications that shall include:

a. The staff person's full signature
b. The initials he/she will be using on the medication sheet.
c. The staff person's name legibly printed.

27.8 A Licensed Nurse shall review the medication sheets, at a minimum, on a monthly basis.

27.9 The Licensed Nurse shall sign and date the medication sheet at the time of the review.

27.10 Medication sheets shall be revised, as necessary, by the Licensed Nurse to reflect any change in medication orders.

27.11 The agency shall have a written policy and procedure describing medication safeguards and support protocols for individuals who self-administer their medications.

27.12 If medication errors or omissions occur, the nature of the error or reason for the omission shall be documented according to the agency's written policy and procedure.

27.13 Storage of medications shall comply with the following requirements:

a. Medications shall be stored in a locked area
b. Medications shall be stored separately from non-medical items
c. Medications shall be stored under proper conditions of temperature, light, humidity, and ventilation
d. Medications requiring refrigeration shall be stored in a locked and secured container within the refrigerator
e. Internal and external medications shall be stored separately.

27.14 Potentially harmful substances (e.g., urine test reagent tablets, cleaning supplies, disinfectants) shall be:

a. Clearly labeled
b. Stored in an area separate and apart from medications.

27.15 All medication and treatment orders shall be reviewed and renewed annually, and as otherwise indicated by the licensed health care provider.

27.16 Any and all medication changes require a new order or prescription. A written order by a licensed health care provider or a copy of the prescription shall be maintained in the individual's health care record.

27.17 The agency shall have a written policy and procedure describing the conditions under which Direct Support Staff may copy a new written medication order from the pharmacy prescription label onto the appropriate documentation form. At minimum, the procedure shall require the following:

a. Identification of and training requirements for agency personnel who shall be permitted to copy the medication order from the pharmacy prescription label onto the appropriate documentation form
b. Safeguards for ensuring that the information has been accurately copied
c. Protocols for verification by a Licensed Nurse within 24 hours of any new orders.

27.18 Documentation of training and a competency assessment shall be placed in the personnel file of any agency employee who shall be permitted to copy new written orders from the pharmacy prescription label onto the appropriate documentation form.

27.18.1 A copy of the competency assessment shall also be placed in a location that is readily accessible to the delegating Licensed Nurse.

a. Such location shall be determined according to the agency's policy.

27.19 The agency's policy and procedure required under 27.17 shall be submitted to the DDD Office of Health Care for approval prior to the implementation of the policy.

27.20 Direct Support Staff shall not be permitted to take telephone or verbal orders from licensed health care providers.

27.20.1 Verbal and/or telephone orders shall be taken and transcribed only by a Licensed Nurse.

27.21 PRN medications prescribed by a licensed health care provider shall include specific parameters and rationale for use.

27.22 All PRN medications shall be documented on medication administration sheets. Documentation shall include:

a. The name of the individual to whom the medication is being administered
b. The name, dosage, and route of the medication
c. The date, time(s) and reason for administration
d. The effect of the medication
e. The initials of the person(s) administering the medication.

27.23 The name and dosages of PRN medications administered for the purpose of behavioral intervention shall be documented according to the written policy and procedures of the agency, and in accordance with all applicable requirements of *Section III - Regulations for Behavioral Interventions*. At minimum, the documentation shall include:

a. A description of the behavior(s)
b. A description of less intrusive interventions implemented prior to administering the medication
c. Documentation of follow-up by licensed nursing staff/supervisory staff.

27.24 Medication checks for anyone taking psychotropic medications shall include direct contact on a regular basis between the individual for whom the medications have been prescribed and the licensed health care provider.

27.24.1 The effectiveness of the medication shall be assessed and documented on a regular basis by the multi-disciplinary clinical team.

27.25 Using a standard instrument, tardive dyskinesia checks shall be performed on a quarterly basis by a licensed nurse or licensed health care provider, for any individual for whom psychotropic medications have been prescribed.

27.25.1 The results of the assessment shall be documented in the individual's health care record.

27.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when medications are administered by agency staff.

28.0 MONITORING OF CONTROLLED MEDICATIONS

28.1 Medications listed in Schedules I, II, III, IV, and V (*Appendix A - Controlled Medication Formulary)* and dispensed by the pharmacy shall be:

a. Appropriately stored
b. Appropriately documented
c. Accurately reconciled.

28.1.1 Schedule I, II, and III medications shall be stored separately from other medications in a securely double locked, substantially constructed cabinet.

28.1.2 Schedule IV and V medications shall be stored in a securely locked, substantially constructed cabinet.

28.2 A controlled medication accountability record shall be completed when receiving a Schedule I, II, III, IV, or V medication. The following information shall be included:

a. Name of the individual for whom the medication is prescribed
b. Name, dosage, and route of medication
c. Dispensing pharmacy
d. Date received from pharmacy
e. Quantity received
f. Name of the staff person receiving delivery of the medication
g. Expiration date.

28.3 Controlled medications that are administered daily shall be counted and reconciled at the end of each shift.

28.4 Controlled medications that are prescribed to be used PRN, or solely as a pre-medication for medical appointments, shall be counted and reconciled at minimum on a monthly basis, and each time that the medication is administered.

28.5 The Direct Support Staff shall comply with the agency's written policy and procedure for reconciliation of controlled medications in independent living arrangements when the individual does not self-administer his/her medications.

28.6 The agency shall maintain signed controlled medication accountability records for all individuals receiving such medications.

28.7 The agency shall have a written policy and procedure describing medication safeguards and support protocols for individuals who self-administer their controlled medications.

28.8 Administration of Controlled Medications: When a controlled medication is administered, the staff person administering the medication shall immediately verify and/or enter all of the following information on the accountability record and the medication sheet:

a. Name of the individual to whom the medication is being administered
b. Name of the medication, dosage, and route of administration
c. Amount used
d. Amount remaining
e. Date and time of administration
f. Signature of the staff person administering the medication
g. Expiration date.

28.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when controlled medications are administered.

29.0 DISPOSAL OF MEDICATIONS

29.1 Disposal of Controlled Substances

29.1.1 Agencies shall have a written policy and procedure for the disposal of damaged, excess and/or expired controlled substances.
29.1.2 The policy and procedure shall outline the agency's protocol for the inventory and disposal of all such controlled medications in accordance with federal Drug Enforcement Administration (DEA) regulations and all other applicable federal, state, and local regulations (*Appendix G*).

29.2 Disposal of All Other Legend Drugs (Non-controlled Substances)

29.2.1 Agencies shall have a written policy and procedure for the disposal of all non-controlled medications.
29.2.2 The policy and procedure shall conform to the requirements outlined in the Department of Health's *"Rules and Regulations Governing the Disposal of Legend Drugs"* (*Appendix B*).

29.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when medications are administered.

30.0 SPECIALIZED PROCEDURES

The term "specialized procedure" means a procedure that is necessitated by a specific medical need that an individual with a developmental disability would perform but for the individual's disability, or is a procedure that may be delegated provided that, in the determination of the Registered Nurse, the procedure may be safely performed by appropriately trained Direct Support Staff.

The purpose for classifying a procedure as a "specialized procedure" is to frame a system for ensuring that Direct Support Staff providing such procedures in home and/or community settings have the appropriate training, competency, and monitoring that is necessary in order to protect the health and safety of the individual for whom the care is being provided.

30.1 Specialized procedures that may be delegated to trained and competent Direct Support Staff include:

30.1.1 Catheter Care: Suprapubic (S/P) tubes and Urethral Catheters: Procedures may include use and care of leg bags/drainage bags, and application of an external catheter (male).

30.1.2 Colostomy/ileostomy care: Procedures may include care of the stoma, application of the appliance, and maintenance of the equipment.

30.1.3 Diabetes Care: Procedures may include administration of oral medications, obtaining and reporting glucometer readings to a Licensed Nurse, and knowledge of dietary requirements.

30.1.4 Enteral Care Procedures: Procedures may include giving medications, hydration, and/or nutrition through a gastrostomy or jejunostomy tube; checking for placement, checking for residual, use, care and maintenance of equipment, proper care of formula, and mouth care.

30.1.5 Respiratory treatments: Procedures may include administering medication using a nebulizer set-up, and care and maintenance of the equipment; using CPAP or BiPAP machines, and maintenance of the equipment; administration of oxygen through the utilization of concentrators, oxygen tanks, and humidification; obtaining and reporting pulse oximetry readings to a Licensed Nurse.

30.0 applies to all Departmental licensed residential services in the developmental disabilities system, and to any other licensed services in the developmental disabilities system when specialized procedures are provided.

31.0 HOW SPECIALIZED PROCEDURES ARE DETERMINED

31.1 The initial determination that an individual may need a procedure requiring specialized skill or training may be made by a Registered Nurse, or by any of the individual's licensed health care providers.

31.2 A Registered Nurse shall complete an assessment of the individual's needs and determine whether a required procedure is a specialized procedure as defined herein.

31.3 A Registered Nurse shall assess the individual requiring a specialized procedure, and make a determination if it may be safely performed by trained and competent Direct Support Staff.

31.3.1 The Registered Nurse shall make this decision based on the criteria described below:

a. The procedure requires skill or training that is not typically possessed by a lay person
b. The individual for whom the procedure will be performed has a stable, chronic condition for which the treatment outcomes are predictable
c. The procedure may be performed safely by Direct Support Staff with appropriate training, supervision, and documented competencies.

31.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other Departmental licensed service when specialized procedures are provided.

32.0 WHO MAY PERFORM A SPECIALIZED PROCEDURE

32.1 A specialized procedure may be performed by Direct Support Staff employed by agencies licensed by the Department of Mental Health, Retardation and Hospitals, who have:

a. Completed specialized training
b. Demonstrated competence
c. Receive ongoing monitoring in accordance with these regulations.

32.2 Agencies shall maintain records for any and all Direct Support Staff performing specialized procedures documenting:

a. The specific training provided
b. The demonstrated competence.

32.3 Competence in performing a specialized procedure is specific to the particular needs, risks, and individual characteristics of the person for whom the procedure will be provided. The fact that a Direct Support Staff person may have been approved to perform a specialized procedure for one individual does not create or imply approval for that Direct Support Staff person to perform similar procedures for another individual.

32.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when specialized procedures are provided.

33.0 SPECIALIZED CARE PLAN

33.1 If it has been determined that an individual requires a specialized procedure, the agency shall ensure that:

a. A specialized care plan is attached to the Individualized Plan
b. A copy of the specialized care plan is placed in the individual's health care record.

33.2 The specialized care plan shall be developed by a Registered Nurse and shall:

a. Identify the specialized procedure(s), and
b. The nurse(s) responsible for conducting the training, determining competency of the Direct Support Staff, and providing monitoring/supervision.

33.3 The specialized care plan shall also include:

a. The frequency with which the Registered Nurse shall monitor the performance of Direct Support Staff providing the specialized procedure
b. Any accommodations in the provision of care that are based on the individual's unique needs
c. Provisions for emergency situations.

33.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when specialized procedures are provided.

34.0 TRAINING REQUIREMENTS FOR SPECIALIZED PROCEDURES

34.1 Qualifications of the Instructor:

34.1.1 Training for specialized procedures shall be provided by Registered Nurses who hold a current Rhode Island license in good standing and have two (2) or more years of nursing experience

a. Documentation of instructor qualifications shall be maintained in the employee's personnel file.

34.2 Timeliness of training:

34.2.1 Appropriate training and documentation of competency shall be completed before any Direct Support Staff person performs a specialized procedure without supervision.

a. Training shall be provided in a timely manner so as not to impede services for an individual.

34.3 Training Curriculum Requirements:

34.3.1 All training in specialized procedures shall be conducted by a Registered Nurse utilizing the Department's standardized and approved *Specialized Procedures: Training Curriculum and Competency Assessment Checklists* manual (*Appendix H).*

34.4 Individual Accommodations:

34.4.1 Individuals with developmental disabilities may have had unique experiences that enhance or obstruct the ability to provide care. In the provision of specialized procedures, a combination of best practice and accommodation of individual characteristics or unique needs shall define the procedures to be utilized for each individual.

a. The Registered Nurse shall identify the specific needs of the individual and document any accommodations necessary in the specialized care plan
b. The Direct Support Staff person shall provide the care in accordance with the instructions outlined by the Registered Nurse.

34.5 Documentation of training:

34.5.1 The agency responsible for the health care needs of the individual is responsible for assuring that a Registered Nurse provides a record of training for any Direct Support Staff person who is carrying out a specialized procedure. The training records shall include the following information:

a. The name and title of the Registered Nurse who provided the training
b. The date(s) the training was provided
c. The name of the Direct Support Staff person who received the training
d. A Competency Assessment Checklist form completed by the Registered Nurse
e. The conditions under which reassessment and/or retraining should occur.

34.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when specialized procedures are provided.

35.0 EMERGENCIES

35.1 The Registered Nurse shall be notified of any changes in the condition of an individual who requires a specialized procedure(s).

35.1.1 Provisions for emergency situations shall be documented in the individual's specialized care plan.

35.2 The agency responsible for the health care needs of the individual shall ensure that, even in emergency situations, specialized procedures shall be performed only by Direct Support Staff trained in accordance with the requirements herein, or by licensed nursing personnel.

35.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when specialized procedures are provided.

36.0 COMPETENCE TO PERFORM SPECIALIZED PROCEDURES

36.1 Competence to perform a specialized procedure is a determination wherein the Direct Support Staff person demonstrates adequate knowledge to perform a task, including the use of equipment, and basic problem solving techniques. Competence includes capability and adequate understanding. Training and supervised practice provide the framework for developing competencies.

36.1.1 Determination of competence:

a. The determination of competence shall be made by a Registered Nurse who holds a current Rhode Island license in good standing and has two (2) or more years of nursing experience.
b. The specialized care plan shall identify the nurse(s) responsible for making this determination.

36.1.2 Supervised practice:

a. A Direct Support Staff person who is working toward but has not yet achieved competency in the performance of a specialized procedure, shall provide such procedures under the supervision of a Registered Nurse.

36.1.3 Competence defined:

a. Competence involves demonstrating safe performance of each step of a specialized procedure and the proper use and maintenance of the equipment.
b. The Direct Support Staff person shall demonstrate that he/she is able to perform the skills and exercise the judgment necessary to carry out the task or procedure.

36.1.4 Documentation of competence:

a. Documentation of training and competency to perform specialized procedures, and for whom they may be performed, shall be placed in the employee's personnel file.
b. A copy of the competency assessment shall also be placed in a location that is readily accessible to the delegating Registered Nurse.
c. Such location shall be determined according to the agency's policy.

36.1.5 Review of competence: The competence of a Direct Support Staff person providing a specialized procedure shall be reviewed and assessed by a Registered Nurse as follows:

a. At minimum, on an annual basis
b. At any time when the Direct Support Staff person's competence is in question
c. At any time when there is a change in the condition of the individual for whom the procedure is being provided.

36.1.6 Review of Competence Documentation: The Registered Nurse completing the competency review and assessment shall document in the Direct Support Staff person's personnel record the following information:

a. The date of the review/assessment
b. The findings of the assessment.

36.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when specialized procedures are provided.

37.0 MONITORING OF SPECIALIZED PROCEDURES

37.1 Ongoing monitoring ensures that the Direct Support Staff person's skills and knowledge remain current. The specialized care plan for the individual for whom the procedure is being performed shall include the following monitoring requirements:

a. The level of intensity of the individual's health care needs
b. The stability of the individual's condition
c. The experience of the Direct Support Staff providing the specialized procedures.

37.1.1 Section 37.1 (a) (b) and (c) shall be the basis for determining the frequency of monitoring necessary to ensure the individual's health and safety.

37.2 In accordance with the agency's written policy and procedure, the Registered Nurse shall be notified of any changes in the condition of an individual who requires specialized procedures.

37.3 The Registered Nurse responsible for the supervision and oversight of the specialized procedure shall conduct a physical assessment of the individual for whom the specialized procedure is being provided no less than twice monthly.

37.3.1 The following information shall be documented as a nursing progress note in the individual's health care record:

a. The date of the assessment
b. The findings of the assessment.

37.4 The Registered Nurse shall assess the status of the individual for whom a specialized procedure is being provided any time there is a change in the individual's condition.

37.4.1 The following information shall be documented as a nursing progress note in the individual's health care record:

a. Nature and scope of the change
b. The date of the assessment
c. The assessment findings.

37.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when specialized procedures are provided.

38.0 OXYGEN (O_2) UTILIZATION AND STORAGE STANDARDS

38.1 The administration of Oxygen is considered a specialized procedure, and is subject to all applicable standards as described herein.

38.1.1 There are specific storage and fire safety requirements related to the use of Oxygen (*Appendix I*) therefore applicable standards are defined herein.

38.2 O_2 therapy in any residential and/or day program setting shall be administered through the utilization of an oxygen concentrator.

38.2.1 Liquid oxygen delivery systems shall not be used in day and/or residential settings.

38.3 During the course of transportation, and/or in community activities, O_2 therapy shall be delivered through the utilization of a portable concentrator or E cylinders that are appropriately secured in a portable transport system.

38.4 Agencies are required by law to maintain one E cylinder oxygen tank for each person receiving O_2 as a back-up in the event of a power failure (the E cylinder must be available even in a home or day site with generator capacity).

38.5 If there is a need to store additional cylinders due to the nature of the O_2 requirements for any individual, a request shall be submitted to the DDD Office of Health Care documenting the following information:

a. The individual's medical condition for which O_2 is required
b. The O_2 orders written by a licensed health care provider
c. The proposed number of tanks to be stored, and,
d. A description of the physical location in which the tanks will be stored.

38.6 Decisions relative to increased tank storage shall be made on a case by case basis after review of the request and documentation.

38.7 E cylinders shall be stored:

a. In an appropriate location that ensures the safety of the individuals in the home and/or day program
b. In a fixed stand or secured to a fixed object
c. Away from direct heat sources.

38.7.1 E cylinders shall not be stored in the individual's bedroom or any communal areas within the home.

38.7.2 E cylinders maintained in day program sites shall not be stored in communal areas.

38.8 Any storage of O_2 must meet the requirements of the National Fire Protection Association's protocols for O_2 storage.

38.9 In extraordinary circumstances in which the individual's need for an O_2 flow rate is greater than the capacity that an oxygen concentrator can deliver, the agency may request a variance to utilize E cylinders or another form of O_2 delivery within the residential/day sites.

38.9.1 Such variance request must be made in writing to the MHRH Office of Standards and Licensure and include documentation of the individual's medical status and O_2 orders.
38.9.2 In the event the variance is granted, any storage of O_2 must meet the requirements of the National Fire Protection Association's protocols for O_2 storage.

38.0 applies to all Departmental licensed residential services in the developmental disabilities system, and any other licensed services in the developmental disabilities system when Oxygen Therapy is administered.

Health Care Website Resources

Alzheimer's Association	www.alz.org
American Cancer Society (ACS)	www.cancer.org
American Diabetes Association	www.diabetes.org
American Heart Association	www.americanheart.org
Centers for Disease Control (CDC)	www.cdc.gov
Centers for Medicare and Medicaid Services (CMS – formerly HCFA)	www.cms.hhs.gov
Developmental Disabilities Nurses Association (DDNA National Organization)	www.ddna.org
National Institutes of Health	www.nih.gov
Occupational Safety & Health Administration (OSHA)	www.osha.gov
RI Department of Health	www.health.state.ri.us
RI Department of Mental Health, Retardation & Hospitals	www.mhrh.state.ri.us
RI State Nurses Association	www.risnarn.org
World Health Organization	www.who.int

Appendix A

TITLE 21

Food And Drugs

CHAPTER 21-28

Uniform Controlled Substances Act

ARTICLE 21-28-2.01

Standards and Schedules

SECTION 21-28-2.08

§ 21-28-2.08 Contents of schedules. – Schedule I

(a) Schedule I shall consist of the drugs and other substances, by whatever official name, common or usual name, chemical name, or brand name designated, listed in this section.

(b) Opiates. Unless specifically excepted or unless listed in another schedule, any of the following opiates, including its isomers, esters, ethers, salts, and salts of isomers, esters, and ethers whenever the existence of the isomers, esters, ethers, and salts is possible within the specific chemical designation:

(1) Acetylmethadol

(2) Allylprodine

(3) Alphacetylmethadol

(4) Alphameprodine

(5) Alphamethadol

(6) Benzethidine

(7) Betacetylmethadol

(8) Betameprodine

(9) Betamethadol

(10) Betaprodine

(11) Clonitazene

(12) Dextromoramide

(13) Difenoxin

(14) Diampromide

(15) Diethylthiambutene

(16) Dimenoxadol

(17) Dimepheptanol

(18) Dimethylthiambutene

(19) Dioxaphetyl butyrate

(20) Dipipanone

(21) Ethylmethylthiambutene

(22) Etonitazene

(23) Extoxerdine

(24) Furethidine

(25) Hydroxypethidine

(26) Ketobemidone

(27) Levomoramide

(28) Levophenacylmorphan

(29) Morpheridine

(30) Noracymethadol

(31) Norlevorphanol

(32) Normethadone

(33) Norpipanone

(34) Phenadoxone

(35) Phenampromide

(36) Phenomorphan

(37) Phenoperidine

(38) Piritramide

(39) Proheptazine

(40) Properidine

(41) Propiram

(42) Racemoramide

(43) Trimeperidone

(44) Tilidine

(45) Alpha-methylfentanyl

(46) Beta-hydroxy-3-methylfentanyl other names:

N-[1-(2hydroxy-2-phenethyl)-3-methyl-4piperidingyl]- Nphenylpropanamide

(c) Opium Derivatives. Unless specifically excepted or unless listed in another schedule, any of the following opium derivatives, its salts, isomers, and salts of isomers whenever the existence of the salts, isomers, and salts of isomers is possible within the specific chemical designation:

(1) Acetorphine

(2) Acetyldihydrocodeine

(3) Benzylmorphine

(4) Codeine methylbromide

(5) Codeine-N-Oxide

(6) Cyprenorphine

(7) Desomorphine

(8) Dihydromorphine

(9) Etorphine (Except hydrochloride salt)

(10) Heroin

(11) Hydromorphinol

(12) Methyldesorphine

(13) Methylihydromorphine

(14) Morphine methylbromide

(15) Morphine methylsulfonate

(16) Morphine-N-Oxide

(17) Myrophine

(18) Nococodeine

(19) Nicomorphine

(20) Normorphine

(21) Pholcodine

(22) Thebacon

(23) Drotebanol

(d) Hallucinogenic Substances. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation, which contains any quantity of the following hallucinogenic substances, or which contains any of its salts, isomers, and salts of isomers whenever the existence of the salts, isomers, and salts of isomers is possible within the specific chemical designation (for purposes of this subsection only, the term "isomer" includes the optical, position, and geometric isomers):

(1) 3, 4-methylenedioxy amphetamine

(2) 5-methoxy-3, 4-methylenedioxy amphetamine

(3) 3, 4, 5-trimethoxy amphetamine

(4) Bufotenine

(5) Diethyltryptamine

(6) Dimethyltryptamine

(7) 4-methyl 2, 5-dimethoxyamphetamine

(8) Ibogaine

(9) Lysergic acid diethylamide

(10) Marihuana

(11) Mescaline

(12) Peyote. Meaning all parts of the plant presently classified botanically as Lophophora Williamsii Lemair whether growing or not; the seeds of the plant; any extract from any part of the plant; and any compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds or extracts.

(13) N-ethyl-3-piperidyl benzilate

(14) N-methyl-3-piperidyl benzilate

(15) Psilocybin

(16) Psilocyn

(17) Tetrahydrocannabinols. Synthetic equivalents of the substances contained in the plant, or in the resinous extractives of Cannabis, sp. and/or synthetic substances, derivatives, and their isomers with similar chemical structure and pharmacological activity such as the following: delta 1 cis or trans tetrahydrocannabinol, and their optical isomers. Delta 6 cis or trans tetrahydrocannabinol and their optical isomers. Delta 3, 4 cis or trans tetrahydrocannabinol and its optical isomer. (Since nomenclature of these substances is not internationally standardized, compounds of these structures, regardless of numerical designation of atomic positions covered).

(18) Thiophene analog of phencyclidine. 1-(1-(2 thienyl) cyclo-hexyl) pipiridine: 2-Thienyl analog of phencyclidine: TPCP

(19) 2,5 dimethoxyamphetamine

(20) 4-bromo-2,5-dimethoxyamphetamine, 4-bromo-2,5-dimethoxy-alpha-methylphenethyamine: 4-bromo-2,5-DMA

(21) 4-methoxyamphetamine-4-methoxy-alpha-methylphenethylaimine: paramethoxyamphetamine: PMA

(22) Ethylamine analog of phencyclidine. N-ethyl-1- phenylcyclohexylamine, (1-phenylcyclohexyl) ethylamine, N-(1-phenylcyclophexyl) ethylamine, cyclohexamine, PCE

(23) Pyrrolidine analog of phencyclidine. 1-(1-phencyclohexyl)- pyrrolidine PCPy, PHP

(24) Parahexyl; some trade or other names: 3-Hexyl-1-hydroxy-7,8,9,10-tetrahydro-6,6,9-trimethyl-6H-dibenz o (b,d) pyran: Synhexyl.

(e) Depressants. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a depressant effect on the central nervous system, including its salts, isomers, and salts of isomers whenever the

existence of the salts, isomers, and salts of isomers is possible within the specific chemical designation:

(1) Mecloqualone.

(2) Methaqualone.

(3) 3-methyl fentanyl (n-(3methyl-1(2-phenylethyl)-4-piperidyl)-N-phenylpropanamide.

(4) 3,4-methyl-enedioxymethamphetamine (MDMA), its optical, positional and geometric isomers, salts, and salts of isomers.

(5) 1-methyl-4-phenyl-4-propionoxypiperidine (MPPP), its optical isomers, salts and salts of isomers.

(6) 1-(2-phenylethyl)-4-phenyl-4-acetyloxypiperidine (PEPAP), its optical isomers, salts and salts of isomers.

(7) N-(1-(1-methyl-2-phenyl)ethyl-4-piperidyl)-N-phenyl-acetamide (acetyl-alpha-methylfentanyl), its optical isomers, salts and salts of isomers.

(8) N-(1-(1-methyl-2(2-thienyl)ethyl-4-piperidyl)-N-phenylpropanami de (alpha-methylthiofentanyl), its optical isomers, salts and salts of isomers.

(9) N-(1-benzyl-piperidyl)-N-phenylpropanamide (benzyl-fentanyl), its optical isomers, salts and salts of isomers.

(10) N-(1-(2-hydroxy-2-phenyl)ethyl-4-piperidyl)-N-phenyl-propanamid e (beta-hydroxyfentanyl), its optical isomers, salts and salts of isomers.

(11) N-(3-methyl-1(2-hydroxy-2-phenyl)ethyl-4-piperidyl)-N-phenylpro panamide (beta-hydroxy-3-methylfentanyl), its optical and geometric isomers, salts and salts of isomers.

(12) N-(3-methyl)-1-(2-(2-thienyl)ethyl-4-piperidyl)-N-phenylpro- panamide (3-methylthiofentanyl), its optical and geometric isomers, salts and salts of isomers.

(13) N-(1-2-thienyl)methyl-4-piperidyl)-N-phenylpropanamide (thenylfentanyl), its optical isomers, salts and salts of isomers.

(14) N-(1-(2(2-thienyl)ethyl-4-piperidyl-N-phenylpropanamide (thiofentanyl), its optical isomers, salts and salts of isomers.

(15) N-[1-(2-phenylethyl)-4-piperidyl]-N-(4-fluorophenyl)-propanamid e (para-fluorofentanyl), its optical isomers, salts and salts of isomers.

(16) Gamma hydroxybutyrate, HOOC-CH2-CH2-CH2OH, its optical, position, or geometric isomers, salts and salts of isomers.

(f) Stimulants. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a stimulant effect on the central nervous system, including its salts, isomers, and salts of isomers:

(1) Fenethylline

(2) N-ethylamphetamine

(a) Schedule II shall consist of the drugs and other substances, by whatever official name, common or usual name, chemical name, or brand name designated, listed in this section.

(b) Substances, vegetable origin or chemical synthesis. Unless specifically excepted or unless listed in another schedule, any of the following substances whether produced directly or indirectly by extraction from substances of vegetable origin, or independently by means of chemical synthesis, or by a combination of extraction and chemical synthesis:

(1) Opium and opiate, and any salt, compound, derivative, or preparation of opium or opiate excluding naloxone and its salts, and excluding naltrexone and its salts, but including the following:

(i) Raw opium

(ii) Opium extracts

(iii) Opium fluid extracts

(iv) Powdered opium

(v) Granulated opium

(vi) Tincture of opium

(vii) Etorphine hydrochloride

(viii) Codeine

(ix) Ethylmorphine

(x) Hydrocodone

(xi) Hydromorphone

(xii) Metopon

(xiii) Morphine

(xiv) Oxycodone

(xv) Oxymorphone

(xvi) Thebaine

(2) Any salt, compound, derivative, or preparation which is chemically equivalent or identical with any of the substances referred to in subdivision (1) of this subsection, except that these substances shall not include the isoquinoline alkaloids of opium.

(3) Opium poppy and poppy straw.

(4) Coca leaves and any salt, compound, derivative, or preparation of coca leaves, and any salt, compound, derivative, or preparation which is chemically equivalent or identical with any of these substances, except that the substances shall not include decocainized coca leaves or extraction of coca leaves, which extractions do not contain cocaine or ecgonine.

(5) Concentrate of poppy straw (the crude extract of poppy straw in liquid, solid, or powder form which contains the phenanthrine alkaloids of the opium poppy).

(c) Opiates. Unless specifically excepted or unless listed in another schedule any of the following opiates, including its isomers, esters, ethers, salts; and salts of isomers, esters and, ethers whenever the existence of the isomers, esters, ethers, and salts is possible within the specific chemical designation:

(1) Alphaprodine

(2) Anileridine

(3) Bezitramide

(4) Dihydrocodeine

(5) Diphenoxylate

(6) Fentanyl

(7) Isomethadone

(8) Levomethorphan

(9) Levorphanol

(10) Metazocine

(11) Methadone

(12) Methadone-Intermediate, 4-cyano-2-dimethylamino-4, 4-diphenyl butane

(13) Moramide-Intermediate, 2-methyl-3-morpholino-1, 1-diphenylpropane-carboxylic acid

(14) Pethidine

(15) Pethidine-Intermediate-A, 4-cyano-1-methyl-4-phenylpiperidine

(16) Pethidine-Intermediate-B, ethyl-4-phenylpiperidine-4-carboxylate

(17) Pethidine-Intermediate-C, 1-methyl-4-phenylpiperidine-4-carboxylic acid

(18) Phenaxocine

(19) Piminodine

(20) Racemethorphan

(21) Racemorphan

(22) Bulk Dextropropoxyphene (non-dosage forms)

(23) Suffentanil

(24) Alfentanil

(25) Levoalphacetylmethadol

(d) Stimulants. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a stimulant effect on the central nervous system:

(1) Amphetamine, its salts, optical isomers, and salts of its optical isomers.

(2) Methamphetamine, its salts and salts of its isomers.

(3) Phenmetrazine and its salts.

(4) Methylphenidate.

(e) Depressants. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a depressant effect on the central

nervous system, including its salts, isomers, and salts of isomers whenever the existence of the salts, isomers, and salts of isomers is possible within the specific chemical designation:

(1) Amobarbital

(2) Glutethimide

(3) Methyprylon

(4) Pentobarbital

(5) Phencyclidine

(6) Secobarbital

(7) Phencyclidine immediate precursors:

(i) 1-phencyclohexylamine

(ii) 1-piperidinocyclohexane-carbonitrile (PCC)

(8) Immediate precursor to amphetamine and methamphetamine: Phenylacetone. Some other names: phenyl-2-propanone; P2P; benzyl methyl ketone; methyl benzone ketone.

(a) Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a depressant effect on the central nervous system:

(1) Any substance which contains any quantity of a derivative of barbituric acid, or any salt of a derivative of barbituric acid.

(2) Chlorhexadol

(3) Lysergic acid

(4) Lysergic acid amide

(5) Sulfondiethylmethane

(6) Sulfonethylmethane

(7) Sylfonmethane

(8) Any compound, mixture, or preparation containing amobarbital, secobarbital, pentobarbital, or any salt of them and one or more other active medicinal ingredients which are not listed in any schedule.

(9) Any suppository dosage form containing amobarbital, secobarbital, pentobarbital or any salt of any of these drugs and approved by the Food and Drug Administration for marketing only as a suppository.

(10) Ketamine, its salts, isomers and salts of isomers. (Some other names for ketamine: (+)-2-(2-chlorophenyl)-2-(methylamino)-cyclohexanone).

(b) Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation containing limited quantities of any of the following narcotic drugs, or any salts of them:

(1) Not more than one and eight tenths grams (1.8 gms.) of codeine per one hundred milliliters (100 mls.) or not more than ninety milligrams (90 mgs.) per dosage unit, with an equal or greater quantity of an isoquinoline alkaloid of opium.

(2) Not more than one and eight tenths grams (1.8 gms.) of codeine per one hundred milliliters (100 mls.) or not more than ninety milligrams (90 mgs.) per dosage unit, with one or more active, nonnarcotic ingredients in recognized therapeutic amounts.

(3) Not more than three hundred milligrams (300 mgs.) of dihydrocodeinone per one hundred milliliters (100 mls.) or not more than fifteen milligrams (15 mgs.) per dosage unit, with a fourfold or greater quantity of an isoquinoline alkaloid of opium.

(4) Not more than three hundred milligrams (300 mgs.) of dihydrocodeinone per one hundred milliliters (100 mls.) or not more than fifteen milligrams (15 mgs.) per dosage unit, with one or more active nonnarcotic ingredients in recognized therapeutic amounts.

(5) Not more than one and eight tenths grams (1.8 gms.) of dihydrocodeine per one hundred milliliters (100 mls.) or not more than ninety milligrams (90 mgs.) per dosage unit, with one or more active nonnarcotic ingredients in recognized therapeutic amounts.

(6) Not more than three hundred milligrams (300 mgs.) of ethylmorphine per one hundred milliliters (100 mls.) or not more than fifteen milligrams (15 mgs.)

per dosage unit, with one or more active nonnarcotic ingredients in recognized therapeutic amounts.

(7) Not more than five hundred milligrams (500 mgs.) of opium per one hundred milliliters (100 mls.) or per one hundred grams (100 gms.) or not more than twenty-five milligrams (25 mgs.) per dosage unit, with one or more active nonnarcotic ingredients in recognized therapeutic amounts.

(8) Not more than fifty milligrams (50 mgs.) of morphine per one hundred milliliters (100 mls.) per one hundred grams (100 gms.) with one or more active, nonnarcotic ingredients in recognized therapeutic amounts.

(c) Stimulants. Unless specifically excepted or listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a stimulant effect on the central nervous system, including its salts, isomers, and salts of the isomers whenever the existence of the salts of isomers is possible within the specific chemical designation:

(1) Benzphetamine

(2) Chlorphentermine

(3) Clortermine

(4) Mazindol

(5) Phendimetrazine

(d) Steroids and hormones. Anabolic steroids (AS) or human growth hormone (HGH), excluding those compounds, mixtures, or preparations containing an anabolic steroid that because of its concentration, preparation, mixture or delivery system, has no significant potential for abuse, as published in 21 CFR 1308.34, including, but not limited to, the following:

(1) Chorionic gonadotropin

(2) Clostebol

(3) Dehydrochlormethyltestosterone

(4) Ethylestrenol

(5) Fluoxymesterone

(6) Mesterolone

(7) Metenolone

(8) Methandienone

(9) Methandrostenolone

(10) Methyltestosterone

(11) Nandrolone decanoate

(12) Nandrolone phenpropionate

(13) Norethandrolone

(14) Oxandrolone

(15) Oxymesterone

(16) Oxymetholone

(17) Stanozolol

(18) Testosterone propionate

(19) Testosterone-like related compounds

(20) Human Growth Hormone (HGH)

(1) Dronabinol (synthetic) in sesame oil and encapsulated in a soft gelatin capsule in U.S. Food and Drug Administration approved drug product. (Some other names for dronabinol: (6aR-trans)-6a, 7, 8, 10a- tetrahydro-6, 6, 9-trimethyl-3-pentyl-6H- dibenzo[b,d]pyra n-1-ol,or(-)-delta-9(trans)-tetrahydrocannabinol.)

(1) Barbital.

(2) Chloral betaine

(3) Chloral hydrate

(4) Ethchrovynol

(5) Ethinamate

(6) Methohexital

(7) Meprobamate

(8) Methylphenobarbital

(9) Paraldehyde

(10) Petrichloral

(11) Phenobarbital

(12) Fenfluramine

(13) Diethylpropion

(14) Phentermine

(15) Pemoline (including organometallic complexes and chelates thereof).

(16) Chlordiazepoxide

(17) Clonazepam

(18) Clorazepate

(19) Diazepam

(20) Flurazepam

(21) Mebutamate

(22) Oxazepam

(23) Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances, including its salts:

Dextropropoxyphene(alpha-(+)-4-dimethylamino-1,2-diphenyl-3- methyl-2-propronoxybutane).

(24) Prazepam

(25) Lorazepam

(26) Not more than one milligram (1 mg.) of difenoxin and not less than twenty-five (25) micrograms of atropine sulfate per dosage unit.

(27) Pentazocine

(28) Pipradrol

(29) SPA (-)-1-dimethylamino-1, 2-diphenylethane

(30) Temazepam

(31) Halazepam

(32) Alprazolam

(33) Bromazepam

(34) Camazepam

(35) Clobazam

(36) Clotiazepam

(37) Cloxazolam

(38) Delorazepam

(39) Estazolam

(40) Ethyl loflazepate

(41) Fludizaepam

(42) Flunitrazepam

(43) Haloxazolam

(44) Ketazolam

(45) Loprazolam

(46) Lormetazepam

(47) Medazepam

(48) Nimetazepam

(49) Nitrazepam

(50) Nordiazepam

(51) Oxazolam

(52) Pinazepam

(53) Tetrazepam

(54) Mazindol

(55) Triazolam

(56) Midazolam

(57) Quazepam

(58) Butorphanol

(59) Sibutramine

(a) Any compound, mixture, or preparation containing any of the following limited quantities of narcotic drugs, which shall include one or more non-narcotic active medicinal ingredients in sufficient proportion to confer upon the compound, mixture, or preparation valuable medicinal qualities other than those possessed by the narcotic drug alone:

(1) Not more than two hundred milligrams (200 mgs.) of codeine per 100 milliliters (100 mls.) or per one hundred grams (100 gms.).

(2) Not more than one hundred milligrams (100 mgs.) of dihydrocodeine per 100 milliliters (100 mls.) or per one hundred grams (100 gms.).

(3) Not more than one hundred milligrams (100 mgs.) of ethylmorphine per 100 milliliters (100 mls.) or per one hundred grams (100 gms.).

(4) Not more than two and five tenths milligrams (2.5 mgs.) of diphenixylate and not less than twenty-five (25) micrograms of atropine sulfate per dosage unit.

(5) Not more than one hundred milligrams (100 mgs.) of opium per one hundred milliliters (100 mls.) or per one hundred grams (100 gms.).

(b) Not more than five tenths milligrams (0.5 mgs.) of difenoxin and not less than twenty-five (25) micrograms of atropine sulfate per dosage unit.

(c) Buprenorphine

(d) Unless specifically exempted or excluded or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a stimulant effect on the central nervous system, including its salts, isomers and salts of isomers:

(1) Propylhexedrine (except as benzedrex inhaler)

(2) Pyrovalerone.

Appendix B

Appendix B

Rules and Regulations Governing the Disposal of Legend Drugs

A copy of the most recent version of the duly promulgated **Rules and Regulations Governing the Disposal of Legend Drugs** may be obtained by contacting:

The Rhode Island Department of Health
Division of Health Services Regulation
3 Capitol Hill
Providence, Rhode Island
02903

Phone: 401.222.1039

Web site: www.health.state.ri.us/hsr/regulations/index.php

OR

By visiting the Secretary of State's Rules web site at:

www.rules.state.ri.us/rules/

Appendix C

TITLE 5
Businesses and Professions

CHAPTER 5-34
Nurses

SECTION 5-34-1

§ 5-34-1 Legislative intent. – The legislature of the state, in order to safeguard life, health, property, and the public welfare of the people of this state and, in order to protect the people of the state from the unauthorized, unqualified, and improper application of services by individuals in the practice of nursing, declares it a policy to continue to adequately provide for state regulatory authority for nursing. The legislature further declares it is the policy of the state that state regulatory authority for nursing have the power to enforce the provisions of this chapter. Any person who practices or offers to practice nursing or who represents oneself as a licensed professional or practical nurse without qualifying under the provisions of this chapter endangers the public health.

§ 5-34-1.1 Title of act. – This act shall be known and may be cited as "The Rhode Island Nurse Practice Act."

§ 5-34-2 License and registration required to practice nursing or use title. – It is unlawful for any person to practice or offer to practice nursing in this state or to use any title, sign, abbreviation, card, or device indicating authority to practice nursing unless that person is licensed and registered under the provisions of this chapter.

§ 5-34-3 Definitions. – (a) "Approval" means the process where the board of nursing evaluates and grants official recognition to basic nursing education programs meeting established criteria and standards.

(b) "Certified registered nurse practitioner" is an advanced practice nurse utilizing independent knowledge of physical assessment and management of health care and illnesses. The practice includes prescriptive privileges. The practice includes collaboration with other licensed health care professionals including, but not limited to, physicians, pharmacists, podiatrists, dentists and nurses.

(c) "Health" means optimum well-being.

(d) "Healthcare" means those services provided to promote the optimum well-being of individuals.

(e) "Licensed" means the status of qualified individuals who have completed a designated process by which the board of nursing grants permission to individuals accountable and/or responsible for the practice of nursing and to engage in that practice, prohibiting all others from legally doing so.

(f) "Nursing" means the provision of services that are essential to the promotion, maintenance, and restoration of health throughout the continuum of life. It provides care and support of individuals and families during periods of wellness, illness, and injury, and incorporates the appropriate medical plan of care prescribed by a licensed physician, dentist, or podiatrist. It is a distinct component of health services. Nursing practice is based on specialized knowledge, judgment, and nursing skills acquired through educational preparation in nursing and in the biological, physical, social, and behavioral sciences.

(g) "Practical nursing" is practiced by licensed practical nurses (L.P.N.s). It is an integral part of nursing based on a knowledge and skill level commensurate with education. It includes promotion, maintenance, and restoration of health and utilizes standardized procedures leading to predictable outcomes which are in accord with the professional nurse regimen under the direction of a registered nurse. In situations where registered nurses are not employed, the licensed practical nurse functions under the direction of a licensed physician, dentist, podiatrist or other licensed health care providers authorized by law to prescribe. Each L.P.N. is responsible for the nursing care rendered.

(h) "Professional nursing" is practiced by registered nurses (R.N.s). The practice of professional nursing is a dynamic process of assessment of an individual's health status, identification of health care needs, determination of health care goals with the individual and/or family participation and the development of a plan of nursing care to achieve these goals. Nursing actions, including teaching and counseling, are directed toward the promotion, maintenance, and restoration of health and evaluation of the individual's response to nursing actions and the medical regimen of care. The professional nurse provides care and support of individuals and families during periods of wellness and injury, and incorporates where appropriate, the medical plan of care as prescribed by a licensed physician, dentist or podiatrist or other licensed health care providers authorized by law to prescribe. Each R.N. is directly accountable and responsible to the consumer for the nursing care rendered.

(i) "Psychiatric and mental health nurse clinical specialist" is an advanced practice nurse utilizing independent knowledge and management of mental health and illnesses. The practice may include prescription privileges of certain legend medications, controlled substances from Schedule II classified as stimulants, and controlled substances from Schedule IV within the scope of their practice. The practice may include collaboration with other licensed health care professionals, including, but not limited to, psychiatrists,

psychologists, physicians, pharmacists, and nurses. The psychiatric and mental health clinical specialist holds the qualifications defined in § 5-34-40.1.

(j) "Advanced practice nurse" means the status of qualified individuals who hold an active license as a registered nurse and an active license as a nurse in an advanced role as defined under the provisions of this chapter or chapter 5-34.2.

(k) "Department" means the department of health.

§ 5-34-4 Board of nursing – Establishment – Composition – Appointment, terms, and removal of members – Director of nurse registration and nursing education. – (a) Within the division of professional regulation, pursuant to chapter 26 of this title, there is a board of nurse registration and nursing education. The board is composed of fifteen (15) members. The term of office is for three (3) years. No member serves more than two (2) consecutive terms. The member serves until a qualified successor is appointed to serve. In making those appointments, the director of health considers persons suggested by professional nurse organizations and the practical nurse's association.

(b) Present members of the board holding office under the provisions of this chapter as amended, entitled "Nurses", serve as members of the board until the expiration of their terms or until qualified successors are appointed. The fifteen (15) member board includes: eleven (11) professional nurses, two (2) practical nurses appointed by the director of health and approved by the governor and two (2) members of the general public appointed by the governor. Three (3) professional nurses are from different basic education programs preparing students to become nurses; one professional nurse is from a nursing service administration; four (4) professional nonadministrative, clinical nurses not licensed as advanced practice nurses, and three (3) professional advanced practice nurses, one who holds a license as a certified registered nurse anesthetist, one who holds a license as a certified registered nurse practitioner, and one who holds a license as a psychiatric and mental health nurse clinical specialist. No educational program or cooperating agency has more than one representative on the board.

(c) The director of health may remove any member from the board for cause including, but not limited to, neglect of any duty required by law, or incompetence, or unprofessional conduct, or willful misconduct. A member subject to disciplinary proceedings is disqualified from board business until the charge is adjudicated. There is also a director of nurse registration and nursing education appointed by the director of health in accordance with the provisions of chapter 4 of title 36.

§ 5-34-5 Board of nursing – Qualifications of members. – (a) Each member of the board of nurse registration and nursing education shall:

(1) Be a citizen of the United States;

(2) Be a resident of the state for at least one year immediately preceding appointment;

(3) File the statutory oath of office with the secretary of state before beginning the term of office; and

(4) Sign a conflict-of-interest statement.

(b) Each professional nurse member of the board is:

(1) Currently licensed as a registered nurse in the state; and

(2) Has at least five (5) years' experience in nursing practice or administration, nursing service, or teaching or administration in a nursing education program and is currently employed in nursing at the time of appointment and employed in nursing for at least three (3) years immediately preceding appointment.

(c) Each practical nurse member of the board is:

(1) Currently licensed as a practical nurse in the state; and

(2) Has at least five (5) years' experience in practical nursing and is currently employed in nursing for at least three (3) years immediately preceding appointment.

(d) Each advanced practice nurse member of the board:

(1) Is currently licensed as an advanced practice nurse in the state; and

(2) Has at least five (5) years experience in nursing practice and is currently employed as an advanced practice nurse for at least three (3) years immediately preceding appointment.

(e) Neither member from the general public is a nurse or is enrolled in a nursing education program.

§ 5-34-6 Board of nursing – Organization – Meetings. – The board of nurse registration and nursing education elects annually from its membership a president and vice-president. A secretary is also elected. The state director of nurse registration and nursing education is not a member of the board. Meetings may be called by the president, vice-president, director of nurse registration and nursing education, director of health, or upon written request of five (5) members of the board. A majority constitutes a quorum at any meeting.

§ 5-34-7 Board of nursing – General powers. – The board of nurse registration and nursing education is authorized, subject to the approval of the director of health, to:

(1) Adopt, review, or revise rules, and regulations consistent with the law that may be necessary to effect provisions of the chapter;

(2) Approve nursing education programs according to the rules established by the board;

(3) Require standards for nursing practice within organized nursing services and the individual practice of licensees;

(4) Approve the examinations for licensure;

(5) Establish requirements to validate competence for reinstatement to the active list;

(6) Conduct hearings upon charges calling for discipline of a licensee or revocation of a license;

(7) Issue subpoenas to, compel the attendance of witnesses at, and administer oaths to persons giving testimony at hearings;

(8) Cause the prosecution or enjoinder of all persons violating this chapter;

(9) Maintain a record of all its proceedings;

(10) Submit an annual report to the director of health;

(11) Utilize other persons that may be necessary to carry on the work of the board;

(12) Conduct public hearings, investigations, and studies of nursing practice, nursing education, and related matters and prepare and issue publications that, in the judgment of the board, allow the nursing profession to provide safe, effective nursing services to the public;

(13) Determine qualifications necessary for prescriptive privileges for certified registered nurse practitioners;

(14) Grant certified registered nurse practitioners prescriptive privileges;

(15) Determine qualification necessary for the prescriptive privileges for psychiatric and mental health clinical nurse specialists; and

(16) Grant certified psychiatric and mental health clinical nurse specialists prescriptive privileges.

§ 5-34-8 Board of nursing – Compensation of members. – Each member of the board of nurse registration and nursing education is paid fifty dollars ($50.00) for each day or portion of a day spent in discharge of official duties.

§ 5-34-9 Register of nurses – Records – Issuance of licenses. – The department licenses and renews licenses upon the recommendation of the board of nurse registration

and nursing education and maintains a roster of all applicants for licensure and all nurses licensed under this chapter, which is open at all reasonable times to public inspection; and is custodian of all records pertaining to the roster and licensing of all nurses; and has the custody of the official seal. The department issues all licenses to practice nursing only upon recommendation of the board of nurse registration and nursing education.

§ 5-34-10 Qualifications of professional nurse applicants. – An applicant for licensure to practice as a professional nurse submits to the board written evidence on forms furnished by the division of professional regulation, verified by oath, that the applicant:

(1) Has completed at least an approved high school course of study or the equivalent supported by diploma or certificate of the course of study as determined by the rules and regulations of the state board of education;

(2) Has successfully completed the prescribed curriculum in an approved basic professional nursing education program and holds a diploma from the program; and

(3) Is of good moral character.

§ 5-34-11 Licensing of professional nurses. – (a) By examination. The applicant is required to pass a written or computerized adaptive testing examination determined by the board of nurse registration and nursing education. Upon successful completion of that examination, the applicant receives a license to practice nursing as a professional nurse.

(b) Without examination by endorsement. A license to practice nursing as a professional nurse may be issued without examination to an applicant who is licensed by examination as a professional nurse under the laws of another state or territory if, in the opinion of the board of nurse registration and nursing education, the applicant meets the qualifications required of professional nurses in this state.

(c) The board of nurse registration and nursing education acts on each application within ninety (90) days of its submission.

§ 5-34-12 Application fee for professional nurses. – The applicant for a license to practice nursing as a professional nurse pays a fee of ninety-three dollars and seventy five cents ($93.75).

§ 5-34-13 Right to use professional nurse title. – Any person who holds a license to practice as a professional nurse in this state has the right to use the title "Registered nurse" and the abbreviation "R.N." No other person may assume that title or use that abbreviation or any other words or letters, signs, figures, or devices to indicate that the person using it is a professional nurse.

§ 5-34-14 Qualifications of practical nurse applicants. – An applicant for a license to practice as a licensed practical nurse submits to the board of nurse registration and

nursing education written evidence on forms furnished by the department, verified by oath, that the applicant:

(1) Has completed the preliminary educational requirements prescribed by the board;

(2) Has furnished satisfactory proof that he or she successfully completed the prescribed curriculum in an approved program of practical nursing and holds a diploma or certificate from the program or is a graduate of an approved school of professional nursing or was a student in good standing at an approved school of professional nursing before completing the program of studies and, at the time of withdrawal, had completed a program of study, theory and clinical practice equivalent to that required for graduation from an approved school of practical nursing; and

(3) Is of good moral character.

§ 5-34-15 Licensing of practical nurses. – (a) By examination. The applicant for a license to practice as a licensed practical nurse in this state is required to pass a written or computerized adaptive testing examination determined by the board of nurse registration and nursing education. Upon successful completion of that examination, the applicant receives a license to practice nursing as a licensed practical nurse.

(b) Without examination by endorsement. A license to practice as a licensed practical nurse is issued without examination to any applicant who is licensed by examination as a practical nurse or a person entitled to perform similar services under a different title under laws of another state or territory if, in the opinion of the board of nurse registration and nursing education, the applicant meets the requirements for licensed practical nurses in this state.

§ 5-34-16 Application fee for practical nurse licensure. – The applicant for licensure to practice as a licensed practical nurse pays a fee of sixty-two dollars and fifty cents ($62.50).

§ 5-34-17 Right to use practical nurse title. – Any person who holds a license to practice nursing as a practical nurse in this state has the right to use the title "Licensed Practical Nurse" and the abbreviation "L.P.N." No other person may assume that title or use that abbreviation or any other words, letters, signs, figures, or devices to indicate that the person using it is a licensed practical nurse.

§ 5-34-18 Signature on licenses for nursing. – All original licenses to practice nursing either as a professional or practical nurse under this chapter are signed by the president and the director of nurse registration and nursing education, and the director of health.

§ 5-34-19 Expiration and renewal of licenses. – (a) The license of every person licensed under this chapter expires on the first day of March of every other year following the date of license. On or before the first day of January of every year, the director mails an application for renewal of license to people scheduled to be licensed

that year. Every person who wishes to renew his or her license files with the department a renewal application duly executed together with the renewal fee of sixty-two dollars and fifty cents ($62.50).

(b) Upon receipt of an application accompanied by payment of fees, the department grants a renewal license effective March second and expiring two (2) years later on March first, and that renewal license renders the holder a legal practitioner of nursing for the period stated on the certificate of renewal; provided that every person seeking renewal of a license hereunder shall provide satisfactory evidence to the department that in the preceding two (2) years the practitioner has completed the ten (10) required continuing education hours as established by the department through rules and regulations. The department may extend for only one six (6) month period these educational requirements if the department is satisfied that the applicant has suffered hardship which prevented meeting the educational requirement.

(c) Any person practicing nursing during the time his or her license has lapsed is considered an illegal practitioner and is subject to the penalties provided for violation of this chapter.

(d) A licensee whose license has expired by failure to renew may apply for reinstatement according to the rules established by the board. Upon satisfaction of the requirements for reinstatement, the board shall issue a renewal of license.

§ 5-34-20 Transfer to inactive list – Reinstatement. – A nurse who does not intend to practice nursing during the two (2) year period, upon written request to the department, may have his or her name transferred to an inactive list and is not required to pay the renewal fee for as long as the inactive status is maintained. A licensee whose license has been transferred to the inactive list may apply for reactivation according to the rules established by the board. Upon satisfaction of the requirements for reinstatement, the department shall issue a renewal of license.

§ 5-34-21 Receipts. – The proceeds of any fees collected pursuant to the provisions of this chapter are deposited as general revenues.

§ 5-34-24 Grounds for discipline of licensees. – The board of nurse registration and nursing education has the power to deny, revoke, or suspend any license to practice nursing; to provide for a nondisciplinary alternative only in situations involving alcohol or drug abuse or to discipline a licensee upon proof that the person is:

(1) Guilty of fraud or deceit in procuring or attempting to procure a license to practice nursing;

(2) Guilty of a crime of gross immorality;

(3) Unfit or incompetent by reason of negligence or habits;

(4) Habitually intemperate or is addicted to the use of habit-forming drugs;

(5) Mentally incompetent;

(6) Guilty of unprofessional conduct which includes, but is not limited to, all of the above and also:

(i) Abandonment of a patient;

(ii) Willfully making and filing false reports or records in the practice of nursing;

(iii) Willful omission to file or record nursing records and reports required by law;

(iv) Failure to furnish appropriate details of a client's nursing needs to succeeding nurses legally qualified to provide continuing nursing services to a client;

(v) Willful disregard of standards of nursing practice and failure to maintain standards established by the nursing profession; or

(7) Guilty of and willfully or repeatedly violating any of the provisions of this chapter and/or rule or regulation adopted thereunder.

§ 5-34-24.1 Nondisciplinary alternative. – The board of nurse registration and nursing education may provide for a nondisciplinary alternative in situations involving alcohol and drug abuse; or any mental illness as listed in the most recent revised publication or the most updated volume of either the Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association or the International Classification of Disease Manual (ICO) published by the World Health Organization and that substantially limits the life activities of the person with the illness; provided, that the nurse agrees to voluntarily participate in a program of treatment and rehabilitation. All records pertaining to a nurse's participation in the nondisciplinary program are confidential and not subject to discovery, subpoena or public disclosure. Provided, that information related to the nondisciplinary program is provided to the nurse's employer to ensure adequate worksite monitoring and compliance.

§ 5-34-24.2 Immunity. – (a) The director of health, director of nursing registration and education, board members, and their agents and employees are immune from suit in any action, civil or criminal, based on any disciplinary proceeding or other official act performed in good faith in the course of their duties under this chapter. There is no civil liability on the part of, or cause of action of any nature against, the board, director, their agents or their employees or against any organization or its members, peer review board or its members, or other witnesses and parties to board proceedings for any statements made in good faith by them in any reports, communications, or testimony concerning an investigation by the board of the conduct or regarding the competence of a licensed nurse.

(b) No licensed health care provider, physician, or limited registrant may discharge, threaten or discriminate against an employee, staff member or any other person for making a report to, giving testimony to, or providing any other communication to the board, a peer review organization, or any appropriate supervisory personnel concerning the unprofessional conduct or incompetence or negligence of a nurse; provided, that the report, testimony or other communication was made in good faith.

§ 5-34-25 Procedure for discipline of licensees. – (a) Upon filing a timely sworn complaint within a time period the board considers reasonable with the board charging a person with having been guilty of any of the actions specified in § 5-34-24, two (2) or more members of the board of nurse registration and nursing education immediately shall investigate those charges, or the board, after investigation, may institute charges.

(b) In the event that investigation, in the opinion of the board, reveals reasonable grounds for believing the applicant or licensee is guilty of the charges, the board shall notify the licensee of the charges and the time and place for a hearing at least twenty (20) days prior to the time fixed for the hearing. At the hearing, the accused has the right to appear personally, or by counsel, or both, to produce witnesses and to have subpoenas issued by the board. The attendance of witnesses and the production of books, documents, and papers at the hearing may be compelled by subpoenas issued by the board, which is served in accordance with the law. At the hearing, the board administers oaths that may be necessary for the proper conduct of the hearing. The board is not bound by the strict rules of procedure or by the laws of evidence in the conduct of its proceedings, but the determination is based upon sufficient legal evidence to sustain it. The board shall complete the investigation of each complaint and issue a decision within six (6) months of the receipt of the complaint; provided, however, that the board may extend the time for issuing its decision beyond the initial six (6) month period in documented cases in which delays in the process are the direct result of requests or actions by the accused and/or his or her representative(s) or other good cause. The board, on a case by case basis, for good cause shown in writing, may extend the time for issuing its decision. If the accused is found guilty of the charges, the board may revoke, suspend, or otherwise discipline a licensee.

(c) All hearings held under this section shall be conducted in accordance with the provisions of chapter 35 of title 42 entitled "Administrative Procedures Act."

§ 5-34-26 Grounds for discipline without a hearing. – The director may temporarily suspend the license of a nurse without a hearing if the director finds that evidence in his or her possession indicates that a nurse's continuation in practice would constitute an immediate danger to the public. In the event that the director temporarily suspends the license of a nurse without a hearing, a hearing by the board must be held within ten (10) days after the suspension has occurred.

§ 5-34-28 Appeals from board. – An appeal from any decision or order of the board may be taken by any aggrieved party to the superior court in the manner provided for in chapter 35 of title 42.

§ 5-34-29 Penalty for violations. – (a) It is a misdemeanor for any person, firm, corporation, or association to:

(1) Sell or fraudulently obtain or furnish any nursing diploma, license, or record or aid or abet in this;

(2) Practice nursing as defined by this chapter and under cover of any diploma, license, or record illegally or fraudulently obtained, or signed, or issued unlawfully or under fraudulent representation;

(3) Practice nursing as defined by this chapter unless licensed to do so under the provisions of this chapter;

(4) Use in connection with his or her name any designation tending to imply that he or she is a professional nurse or a licensed practical nurse unless licensed to practice under the provisions of this chapter;

(5) Practice nursing during the time his or her license issued under the provisions of this chapter is suspended or revoked;

(6) Conduct a basic professional nursing education program or a practical nursing education program unless it has been approved by the board of nurse registration and nursing education; and

(7) Violate any of the provisions of this chapter.

(b) The misdemeanor is punishable by a fine of not less than three hundred dollars ($300) for the first offense. Each subsequent offense is punishable by a fine of not less than five hundred dollars ($500) or by imprisonment of not more than one year or by both the fine and imprisonment.

§ 5-34-30 Injunction of violations. – When it appears to the board of nurse registration and nursing education that any person is violating any of the provisions of this chapter, the director of health may cause an action to be instituted, commenced in the name of the board, to enjoin that violation in a court of competent jurisdiction, and that court may enjoin any person, firm, corporation, or association from violating any of the provisions of this chapter without regard to whether proceedings have been or may be instituted before the board or whether criminal proceedings have been or may be instituted.

§ 5-34-31 Practices and persons exempt. – No provisions of this chapter are construed as prohibiting: (1) gratuitous nursing by friends or members of the family or as prohibiting the care of the sick by domestic servants, housekeepers, nursemaids, companions, or household aides of any type, whether employed regularly or because of an emergency of illness, provided that person is employed primarily in a domestic capacity and does not hold himself or herself out or accept employment as a person licensed to practice nursing for hire under the provisions of this chapter or as prohibiting

nursing assistants in the case of any emergency; (2) the practice of nursing by students enrolled in approved educational programs of professional nursing or practical nursing educational programs nor by graduates of those schools or courses pending the results of the licensing examinations following that graduation, provided that they are licensed in this state within ninety (90) days from the date on the application fee receipt, in accordance with regulations prescribed by the board; (3) the practice of nursing in this state by any legally qualified nurse of another state whose engagement requires him or her to accompany and care for a patient temporarily residing in this state during the period of this engagement not to exceed six (6) months in length, provided that person does not represent or hold himself or herself out as a nurse licensed to practice in this state; (4) the practice of any legally qualified nurse of another state who is employed by the United States government or any bureau, division, or agency of the government while in the discharge of his or her official duties; (5) persons employed in state and licensed hospitals and sanatoria, licensed homes for the aged and/or convalescent persons, and recognized public health agencies from assisting in the nursing care of patients if adequate medical or nursing supervision is provided; (6) nursing care of the sick with or without compensation or personal profit when done in connection with the practice of the religious tenets of any recognized or established church by adherents as long as they do not engage in the practice of nursing as defined in this chapter; (7) persons who provide acceptable evidence of being currently licensed by examination or endorsement under the laws of other states of the United States and the District of Columbia from practicing nursing in this state for a period of ninety (90) days from the date on the application fee receipt, provided that they are licensed in this state within ninety (90) days from the date on the application fee receipt. The original privilege to work ninety (90) days from the date on the application fee receipt is not extended or renewed.

§ 5-34-32 Enforcement of chapter. – The director of health enforces the provisions of this chapter. He or she is exempt from providing surety for costs in connection with the commencement of any legal proceedings pursuant to this chapter.

§ 5-34-33 Severability. – The provisions of this chapter are severable and, if any of its provisions are held unconstitutional by any court of competent jurisdiction, the decision of that court does not affect or impair any of the remaining provisions.

§ 5-34-34 Immunity from liability for gratuitous emergency assistance. – No person licensed under the provision of this chapter or members of the same professions licensed to practice in other states of the United States who voluntarily and gratuitously and, other than in the ordinary course of his or her employment or practice, renders emergency medical assistance to a person in need is liable for civil damages for any personal injuries which result from acts or omissions by those persons in rendering the emergency care which may constitute ordinary negligence. The immunity granted by this section does not apply to acts or omissions constituting gross, willful, or wanton negligence or when the medical assistance is rendered at any hospital, doctor's office, or clinic where those services are normally rendered.

§ 5-34-35 Qualifications of a certified registered nurse practitioner applicant. – (a) An applicant for licensure to practice as a certified registered nurse practitioner submits to the board of nurse registration and nursing education written evidence on forms furnished by the division of professional regulation, verified by oath, that:

(1) The applicant is a registered nurse who has completed an accredited educational program resulting in a master's degree in nursing and/or an approved nurse practitioner course of study. This curriculum must include both a didactic component and supervised clinical experience. Effective January 1, 2004 all applicants for initial licensure must complete an accredited educational program resulting in a master's degree with a major in nursing.

(2) The applicant passed a national qualifying examination recognized by the board of nurse registration and nursing education.

(b) A license to practice as a certified registered nurse practitioner may be issued to an applicant who is licensed by examination or endorsement as a certified registered nurse practitioner under the laws of another state or territory if, in the opinion of the board, the applicant meets the qualifications required of certified registered nurse practitioners in this state.

§ 5-34-36 Licensing of certified registered nurse practitioners. – A license to practice as a certified nurse practitioner is issued if the applicant meets the qualifications for the certified registered nurse practitioner (R.N.P.). Persons who meet the qualifications of a certified registered nurse practitioner, as stated in § 5-34-35, and are currently licensed as certified registered nurse practitioners by examination or endorsement under the laws of another state of the United States and/or the District of Columbia are allowed to practice as certified registered nurse practitioners in this state for a period not to exceed ninety (90) days from the date of clearance by the board of nurse registration and nursing education of the Rhode Island department of health, provided that they are licensed in this state within ninety (90) days. The original privilege to work ninety (90) days from the date of clearance is not extended or renewed.

§ 5-34-37 Application fee for certified registered nurse practitioners. – The initial application fee for licensure as a certified registered nurse practitioner is ninety-three dollars and seventy-five cents ($93.75). The renewal fee for a certified registered nurse practitioner is eighty-seven dollars and fifty cents ($87.50) biennially, sixty-two dollars and fifty cents ($62.50) for registered nurse fee plus twenty-five dollars ($25.00) for the certified registered nurse practitioner. The fee for application for prescriptive privileges is thirty-one dollars and twenty-five cents ($31.25).

§ 5-34-38 Right to use certified registered nurse practitioner title. – Any person who holds a license to practice as a certified registered nurse practitioner in this state has the right to use the title certified registered nurse practitioner and use the abbreviation "R.N.P.". No other person may assume that title or use that abbreviation or any other

words or letters, signs, figures, or devices to indicate that the person using it is a certified registered nurse practitioner.

§ 5-34-39 Process for prescriptive privileges of certified registered nurse practitioner. – (a) Prescriptive privileges for the certified registered nurse practitioner:

(1) Are granted under the governance and supervision of the department, board of nurse registration and nurse education; and

(2) Include prescription of legend medications and prescription of controlled substances from schedules II, III, IV and V that are established in regulation; and

(3) Must not include controlled substances from Schedule I.

(b) A certified registered nurse practitioner (R.N.P.) as stated in § 5-34-3 is permitted to prescribe in accordance with annually updated guidelines, written in collaboration with the medical director or physician consultant of their individual establishments.

(c) To qualify for prescriptive privileges an applicant must submit on forms provided by the board of nurse registration and nursing education, verified by oath, that the applicant has evidence of completion of thirty (30) hours of education in pharmacology within the three (3) year period immediately prior to date of application. To maintain prescriptive privileges the certified registered nurse practitioner (R.N.P.) must submit upon request of the board of nurse registration and nursing education evidence of thirty (30) hours continuing education in pharmacology every six (6) years.

§ 5-34-40 Certified registered nurse practitioner joint practice advisory committee. – (a) The seven (7) member committee consists of three (3) physicians, three (3) certified registered nurse practitioners, and one consumer. The governor appoints three (3) physicians to the committee from the following specialties – adult medicine, pediatric medicine, and obstetrical-gynecological medicine. The governor appoints three (3) certified registered nurse practitioners from the following specialties – adult nurse practitioner, pediatric nurse practitioner, and obstetrical-gynecological nurse practitioner. The professional members of the committee are currently engaged in a collaborative certified registered nurse practitioner-physician care practice. The consumer member is appointed by the director of the department of health of the state. The consumer member is (1) knowledgeable in consumer health concerns; (2) a resident of the state; (3) not licensed as a health care practitioner; (4) not a parent, spouse, sibling, or child of a person licensed as a health care practitioner, and not a student in a professional program; (5) not having a direct financial interest in health care services; (6) not a member or an employee of any board of control of any public or private health care service.

(b) Each member appointment is for three (3) years, with no member serving more than two (2) consecutive three (3) year terms.

(c) This committee must meet not fewer than two (2) times per year. The committee has the following functions:

(1) To assess nurse practitioner joint primary care practice for the purpose of improving patient care.

(2) Review complaints regarding certified registered nurse practitioners, and recommend any disciplinary or corrective action that they deem appropriate, including revocation and suspension of certification, upon proof that a nurse practitioner has:

(i) Aided or abetted an uncertified person to practice as a nurse practitioner;

(ii) Become addicted to the use of liquor or controlled substances;

(iii) Negligently, willfully, or intentionally acted in a manner inconsistent with the health and safety of persons entrusted to his or her care;

(iv) Had his or her authorization to practice as a nurse practitioner denied, revoked or suspended in another state;

(v) Engaged in the performance of medical functions beyond the scope of practice authorized by the provisions of this chapter;

(vi) Willfully failed to file or record medical records and reports; or

(vii) Mental incompetence.

(3) The recommendation is submitted to the board for implementation.

(4) Report periodically to the board of nurse registration and nursing education regarding certified registered nurse practitioner practice.

§ 5-34-40.1 Qualifications of a psychiatric and mental health clinical nurse specialist applicant. – (a) An applicant for licensure as a psychiatric and metal health clinical nurse specialist submits to the board written evidence on forms furnished by the department of health, verified by oath, that the applicant: (1) Is a registered nurse who has completed an accredited educational program resulting in a master's degree in psychiatric and mental health nursing; and/or (2) Passed a national qualifying examination recognized by the board.

(b) All persons who are engaged in the practice of a psychiatric and mental health clinical nurse specialist on July 1, 2003 who meet the definition in § 5-34-3(i) may be considered to have met the qualifications for licensure providing they have three (3) years experience acceptable to the board between January 1, 1997 and January 1, 2003. After January 1, 2004, all applicants for initial licensure must complete an accredited

educational program resulting in a master's degree in nursing and must pass a national qualifying examination recognized by the board.

§ 5-34-40.2 Licensing of psychiatric and mental health clinical nurse specialists. – A license to practice as a psychiatric clinical nurse specialist is issued if the applicant meets the qualifications for the psychiatric and mental health clinical nurse specialist. Persons who meet the qualifications of a psychiatric and mental health clinical nurse specialist, as stated in § 5-34-40.1, and are currently licensed as psychiatric and mental health clinical nurse specialists by examination or endorsement under the laws of another state or territory of the United States and/or the District of Columbia are allowed to practice as psychiatric and mental health clinical nurse specialists in this state for a period not to exceed ninety (90) days from the date of clearance by the board of nurse registration and nursing education of the Rhode Island department of health, provided that they are licensed in this state within ninety (90) days. The original privilege to work ninety (90) days from the date of clearance in not extended or renewed.

§ 5-34-40.3 Application fee for psychiatric and mental health clinical nurse specialists. – The initial application fee for licensure as a psychiatric and mental health clinical nurse specialist is ninety-three dollars and seventy-five cents ($93.75). The renewal fee for a psychiatric and mental health clinical nurse specialist is eighty-seven dollars and fifty cents ($87.50) biennially, sixty-two dollars and fifty cents ($62.50) for the registered nurse fee plus twenty-five dollars ($25.00) for the psychiatric and mental health clinical nurse specialist. The fee for application for prescriptive privileges is thirty-one dollars and twenty-five cents ($31.25).

§ 5-34-40.4 Right to use psychiatric and mental health clinical nurse specialist title. – Any person who holds a license to practice as a psychiatric and mental health clinical nurse specialist in this state has the right to use the title psychiatric and mental health clinical nurse specialist and use the abbreviation "P.C.N.S." No other person may assume that title or use that abbreviation or any other words or letters, signs, figures, or devices to indicate that the person using it is a psychiatric and mental health clinical nurse specialist.

§ 5-34-41 Process for prescriptive privileges of psychiatric and mental health clinical nurse specialist. – (a) Prescriptive privileges for the psychiatric and mental health clinical nurse specialist:

(1) Are granted under the governance and supervision of the division of professional regulations, board of nurse registration and nurse education; and

(2) Include prescription of certain psychotropic and certain legend medications, controlled substances from Schedule II classified as stimulants, and controlled substances from Schedule IV, that are prescribed in regulations; and

(3) Do not include controlled substances from Schedules I, II, III and V and those certain legend medications not included in subdivision (2).

(4) Are granted for psychiatric and mental health clinical nurse specialists who have a master's degree in nursing.

(b) A psychiatric and mental health clinical nurse specialist as stated in § 5-34-3, is permitted to prescribe in accordance with annually updated guidelines, written in collaboration with the medical director or physician consultant of their individual establishments.

(c) Provided, that a psychiatric and mental health clinical nurse specialist in independent practice does not have prescriptive privileges.

(d) To qualify for prescriptive privileges a psychiatric and mental health clinical nurse specialist, as stated in § 5-34-3, submits on forms provided by the board of nurse registration and nursing education, verified by oath, that the applicant has evidence of completion of thirty (30) hours of education in pharmacology of psychotropic drugs and certain legend medications within the three (3) year period immediately prior to date of application. To maintain prescriptive privileges the psychiatric and mental health clinical nurse specialist must submit upon request of the board of nurse registration and nursing education evidence of thirty (30) hours continuing education in pharmacology of psychotropic drugs every six (6) years.

Appendix D

Appendix D

Rules and Regulations for the Licensing of Nurses and Standards for the Approval of Basic Nursing Education Programs

A copy of the most recent version of the duly promulgated **Rules and Regulations for the Licensing of Nurses and Standards for the Approval of Basic Nursing Education Programs** may be obtained by contacting:

The Rhode Island Department of Health
Division of Health Services Regulation
3 Capitol Hill
Providence, Rhode Island
02903

Phone: 401.222.1039

Web site: www.health.state.ri.us/hsr/regulations/index.php

OR

By visiting the Secretary of State's Rules web site at:

www.rules.state.ri.us/rules/

Appendix E

Recommended Adult Immunization Schedule

UNITED STATES · OCTOBER 2004 – SEPTEMBER 2005

Summary of Recommendations Published by

The Advisory Committee on Immunization Practices

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

Recommended Adult Immunization Schedule by Vaccine and Age Group

UNITED STATES · OCTOBER 2004–SEPTEMBER 2005

Vaccine ▼ / Age group (yrs) ▶	19–49	50–64	≥65
Tetanus, Diphtheria (Td)*	1 dose booster every 10 years[1]		
Influenza	1 dose annually[2]		1 dose annually
Pneumococcal (polysaccharide)	1 dose[3,4]		1 dose[3,4]
Hepatitis B*	3 doses (0, 1–2, 4–6 months)[5]		
Hepatitis A*	2 doses (0, 6–12 months)[6]		
Measles, Mumps, Rubella (MMR)*	1 or 2 doses[7]		
Varicella*	2 doses (0, 4–8 weeks)[8]		
Meningococcal (polysaccharide)	1 dose[9]		

*Covered by the Vaccine Injury Compensation Program.
See Footnotes for Recommended Adult Immunization Schedule on back cover.

For all persons in this group

For persons lacking documentation of vaccination or evidence of disease

For persons at risk (i.e., with medical/exposure indications)

The Recommended Adult Immunization Schedule is Approved by the Advisory Committee on Immunization Practices (ACIP), the American College of Obstetricians and Gynecologists (ACOG), and the American Academy of Family Physicians (AAFP)

This schedule indicates the recommended age groups for routine administration of currently licensed vaccines for persons aged ≥19 years. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. Providers should consult manufacturers' package inserts for detailed recommendations.

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available by telephone, 800-822-7967, or from the VAERS website at http://www.vaers.org.

Information on how to file a Vaccine Injury Compensation Program claim is available at http://www.hrsa.gov/osp/vicp or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, DC 20005, telephone 202-219-9657.

Additional information about the vaccines listed above and contraindications for immunization is available at http://www.cdc.gov/nip or from the National Immunization Hotline, 800-232-2522 (English) or 800-232-0233 (Spanish).

Recommended Adult Immunization Schedule by Vaccine and Medical and Other Indications

UNITED STATES · OCTOBER 2004–SEPTEMBER 2005

Vaccine ▼ / Indication ▶	Pregnancy	Diabetes, heart disease, chronic pulmonary disease, chronic liver disease (including chronic alcoholism)	Congenital immunodeficiency, cochlear implants leukemia, lymphoma, generalized malignancy, therapy with alkylating agents, antimetabolites, CSF** leaks, radiation or large amounts of corticosteroids	Renal failure/end stage renal disease, recipients of hemodialysis or clotting factor concentrates	Asplenia (including elective splenectomy and terminal complement component deficiencies)	HIV*** infection	Health-care workers
Tetanus, Diphtheria (Td)*,[1]	For all persons in this group	For all persons in this group	For all persons in this group	For all persons in this group	For all persons in this group	For all persons in this group	For persons lacking documentation of vaccination or evidence of disease
Influenza[2]	For all persons in this group	A, B	For all persons in this group	For all persons in this group	C	For all persons in this group	For all persons in this group
Pneumococcal (polysaccharide)[3,4]	For persons at risk (i.e., with medical/exposure indications)	B	D	D	D, E, F	D, G	For persons at risk (i.e., with medical/exposure indications)
Hepatitis B*,[5]	For persons at risk (i.e., with medical/exposure indications)	For persons at risk (i.e., with medical/exposure indications)	For persons at risk (i.e., with medical/exposure indications)	H	For persons at risk (i.e., with medical/exposure indications)	For all persons in this group	For persons lacking documentation of vaccination or evidence of disease
Hepatitis A*,[6]	For persons at risk (i.e., with medical/exposure indications)	I	For persons at risk (i.e., with medical/exposure indications)	For persons at risk (i.e., with medical/exposure indications)	For persons at risk (i.e., with medical/exposure indications)	For persons at risk (i.e., with medical/exposure indications)	L
Measles, Mumps, Rubella (MMR)*,[7]	Contraindicated	For persons lacking documentation of vaccination or evidence of disease	Contraindicated	For persons lacking documentation of vaccination or evidence of disease	For persons lacking documentation of vaccination or evidence of disease	J	For persons lacking documentation of vaccination or evidence of disease
Varicella*,[8]	Contraindicated	For persons lacking documentation of vaccination or evidence of disease	K	For persons lacking documentation of vaccination or evidence of disease	For persons lacking documentation of vaccination or evidence of disease	Contraindicated	For persons lacking documentation of vaccination or evidence of disease

*Covered by the Vaccine Injury Compensation Program.
**Cerebrospinal fluid.
***Human immunodeficiency virus.
See Special Notes for Medical and Other Indications below. Also see Footnotes for Recommended Adult Immunization Schedule on back cover.

For all persons in this group | For persons lacking documentation of vaccination or evidence of disease | For persons at risk (i.e., with medical/exposure indications) | Contraindicated

Special Notes for Medical and Other Indications

A. Although chronic liver disease and alcoholism are not indications for influenza vaccination, administer 1 dose annually if the patient is aged ≥50 years, has other indications for influenza vaccine, or requests vaccination.

B. Asthma is an indication for influenza vaccination but not for pneumococcal vaccination.

C. No data exist specifically on the risk for severe or complicated influenza infections among persons with asplenia. However, influenza is a risk factor for secondary bacterial infections that can cause severe disease among persons with asplenia.

D. For persons aged <65 years, revaccinate once after ≥5 years have elapsed since initial vaccination.

E. Administer meningococcal vaccine and consider *Haemophilus influenzae* type b vaccine.

F. For persons undergoing elective splenectomy, vaccinate ≥2 weeks before surgery.

G. Vaccinate as soon after diagnosis as possible.

H. For hemodialysis patients, use special formulation of vaccine (40 μg/mL) or two 20 μg/mL doses administered at one body site. Vaccinate early in the course of renal disease. Assess antibody titers to hepatitis B surface antigen (anti-HB) levels annually. Administer additional doses if anti-HB levels decline to <10 mIU/mL.

I. For all persons with chronic liver disease.

J. Withhold MMR or other measles-containing vaccines from HIV-infected persons with evidence of severe immunosuppression (see *MMWR* 1998;47 [No. RR-8]:21–2 and *MMWR* 2002;51 [No. RR-2]:22–4).

K. Persons with impaired humoral immunity but intact cellular immunity may be vaccinated (see *MMWR* 1999;48[No. RR-6]).

L. No data to support a recommendation.

Footnotes

Recommended Adult Immunization Schedule · UNITED STATES · OCTOBER 2004–SEPTEMBER 2005

1. **Tetanus and diphtheria (Td).** Adults, including pregnant women with uncertain history of a complete primary vaccination series, should receive a primary series of Td. A primary series for adults is 3 doses; administer the first 2 doses at least 4 weeks apart and the 3rd dose 6–12 months after the second. Administer 1 dose if the person received the primary series and if the last vaccination was received ≥10 years previously. Consult recommendations for administering Td as prophylaxis in wound management (see *MMWR* 1991;40[No. RR-10]). The American College of Physicians Task Force on Adult Immunization supports a second option for Td use in adults: a single Td booster at age 50 years for persons who have completed the full pediatric series, including the teenage/young adult booster.

2. **Influenza vaccination.** The Advisory Committee on Immunization Practices (ACIP) recommends inactivated influenza vaccination for the following indications, when vaccine is available. *Medical indications:* chronic disorders of the cardiovascular or pulmonary systems, including asthma; chronic metabolic diseases, including diabetes mellitus, renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus [HIV]); and pregnancy during the influenza season. *Occupational indications:* health-care workers and employees of long-term–care and assisted living facilities. *Other indications:* residents of nursing homes and other long-term–care facilities; persons likely to transmit influenza to persons at high risk (i.e., in-home caregivers to persons with medical indications, household/close contacts and out-of-home caregivers of children aged 0–23 months, household members and caregivers of elderly persons and adults with high-risk conditions); and anyone who wishes to be vaccinated. For healthy persons aged 5–49 years without high-risk conditions who are not contacts of severely immunocompromised persons in special care units, either the inactivated vaccine or the intranasally administered influenza vaccine (FluMist®) may be administered (see *MMWR* 2004;53[No. RR-6]).
   Note: Because of the vaccine shortage for the 2004–05 influenza season, CDC has recommended that vaccination be restricted to the following priority groups, which are considered to be of equal importance: all children aged 6–23 months; adults aged ≥65 years; persons aged 2–64 years with underlying chronic medical conditions; all women who will be pregnant during the influenza season; residents of nursing homes and long-term–care facilities; children aged 6 months–18 years on chronic aspirin therapy; health-care workers involved in direct patient care; and out-of-home caregivers and household contacts of children aged <6 months. For the 2004–05 season, intranasally administered, live, attenuated influenza vaccine, if available, should be encouraged for healthy persons who are aged 5–49 years and are not pregnant, including health-care workers (except those who care for severely immunocompromised patients in special care units) and persons caring for children aged <6 months (see *MMWR* 2004;53:923–4).

3. **Pneumococcal polysaccharide vaccination.** *Medical indications:* chronic disorders of the pulmonary system (excluding asthma); cardiovascular diseases; diabetes mellitus; chronic liver diseases, including liver disease as a result of alcohol abuse (e.g., cirrhosis); chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkins disease, generalized malignancy, or organ or bone marrow transplantation); chemotherapy with alkylating agents, antimetabolites, or long-term systemic corticosteroids; or cochlear implants. *Geographic/other indications:* Alaska Natives and certain American Indian populations. *Other indications:* residents of nursing homes and other long-term–care facilities (see *MMWR* 1997;46[No. RR-8] and *MMWR* 2003;52:739–40).

4. **Revaccination with pneumococcal polysaccharide vaccine.** One-time revaccination after 5 years for persons with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkins disease, generalized malignancy, or organ or bone marrow transplantation); or chemotherapy with alkylating agents, antimetabolites, or long-term systemic corticosteroids. For persons aged ≥65 years, one-time revaccination if they were vaccinated ≥5 years previously and were aged <65 years at the time of primary vaccination (see *MMWR* 1997;46[No. RR-8]).

5. **Hepatitis B vaccination.** *Medical indications:* hemodialysis patients or patients who receive clotting factor concentrates. *Occupational indications:* health-care workers and public-safety workers who have exposure to blood in the workplace; and persons in training in schools of medicine, dentistry, nursing, laboratory technology, and other allied health professions. *Behavioral indications:* injection-drug users; persons with more than one sex partner during the previous 6 months; persons with a recently acquired sexually transmitted disease (STD); all clients in STD clinics; and men who have sex with men. *Other indications:* household contacts and sex partners of persons with chronic hepatitis B virus (HBV) infection; clients and staff members of institutions for the developmentally disabled; inmates of correctional facilities; or international travelers who will be in countries with high or intermediate prevalence of chronic HBV infection for >6 months (http://www.cdc.gov/travel/diseases/hbv.htm) (see *MMWR* 1991;40[No. RR-13]).

6. **Hepatitis A vaccination.** *Medical indications:* persons with clotting factor disorders or chronic liver disease. *Behavioral indications:* men who have sex with men or users of illegal drugs. *Occupational indications:* persons working with hepatitis A virus (HAV)-infected primates or with HAV in a research laboratory setting. *Other indications:* persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A. If the combined Hepatitis A and Hepatitis B vaccine is used, administer 3 doses at 0, 1, and 6 months (http://www.cdc.gov/travel/diseases/hav.htm) (see MMWR 1999;48[No. RR-12]).

7. **Measles, mumps, rubella (MMR) vaccination.** *Measles component:* adults born before 1957 can be considered immune to measles. Adults born during or after 1957 should receive ≥1 dose of MMR unless they have a medical contraindication, documentation of ≥1 dose, or other acceptable evidence of immunity. A second dose of MMR is recommended for adults who 1) were recently exposed to measles or in an outbreak setting, 2) were previously vaccinated with killed measles vaccine, 3) were vaccinated with an unknown vaccine during 1963–1967, 4) are students in postsecondary educational institutions, 5) work in health-care facilities, or 6) plan to travel internationally. *Mumps component:* 1 dose of MMR vaccine should be adequate for protection. *Rubella component:* Administer 1 dose of MMR vaccine to women whose rubella vaccination history is unreliable and counsel women to avoid becoming pregnant for 4 weeks after vaccination. For women of childbearing age, regardless of birth year, routinely determine rubella immunity and counsel women regarding congenital rubella syndrome. Do not vaccinate pregnant women or those planning to become pregnant during the next 4 weeks. For women who are pregnant and susceptible, vaccinate as early in the postpartum period as possible (see *MMWR* 1998;47[No. RR-8] and *MMWR* 2001;50:1117).

8. **Varicella vaccination.** Recommended for all persons lacking a reliable clinical history of varicella infection or serologic evidence of varicella zoster virus (VZV) infection who might be at high risk for exposure or transmission. This includes health-care workers and family contacts of immunocompromised persons; persons who live or work in environments where transmission is likely (e.g., teachers of young children, child care employees, and residents and staff members in institutional settings); persons who live or work in environments where VZV transmission can occur (e.g., college students, inmates, and staff members of correctional institutions, and military personnel); adolescents aged 11–18 years and adults living in households with children; women who are not pregnant but who might become pregnant; and international travelers who are not immune to infection.
   Note: Approximately 95% of U.S.-born adults are immune to VZV. Do not vaccinate pregnant women or those planning to become pregnant during the next 4 weeks. For women who are pregnant and susceptible, vaccinate as early in the postpartum period as possible (see *MMWR* 1999;48[No. RR-6]).

9. **Meningococcal vaccine (quadrivalent polysaccharide for serogroups A, C, Y, and W 135).** *Medical indications:* adults with terminal complement component deficiencies or those with anatomic or functional asplenia. *Other indications:* travelers to countries in which meningococcal disease is hyperendemic or epidemic (e.g., the "meningitis belt" of sub-Saharan Africa and Mecca, Saudi Arabia). Revaccination after 3–5 years might be indicated for persons at high risk for infection (e.g., persons residing in areas where disease is epidemic). Counsel college freshmen, especially those who live in dormitories, regarding meningococcal disease and availability of the vaccine to enable them to make an educated decision about receiving the vaccination (see *MMWR* 2000;49[No. RR-7]). The American Academy of Family Physicians recommends that colleges should take the lead on providing education on meningococcal infection and availability of vaccination and offer it to students who are interested. Physicians need not initiate discussion of meningococcal quadrivalent polysaccharide vaccine as part of routine medical care.

Appendix F

GENERAL

- The Direct Support Staff (DSS) will possess a working knowledge of a comprehensive variety of medical principles and procedures and will develop the ability to assist individuals to more fully understand their healthcare needs.

STANDARD PRECAUTIONS

(AND BLOODBORNE PATHOGENS)

- The DSS will demonstrate the ability to apply measures to prevent communicable diseases, to recognize and report the presence or onset of communicable disease, and to carry out the recommended procedures.

WELLNESS/PREVENTION OF ILLNESS

- The DSS will demonstrate an understanding of a comprehensive, holistic approach to healthcare, and positive healthy behaviors that will enhance the individual's overall physical and mental health.

S&S OF ILLNESS + INJURY

- The DSS will be able to recognize the signs and symptoms of illness and injury and take appropriate action.

EMERGENCY CARE

- The DSS will demonstrate an understanding of how to identify and respond to emergency situations, and when to seek outside help.

COMMUNICATION

- The DSS will understand and demonstrate the importance of clear communication and the compliance with standard documentation.

MEDICATION ADMINISTRATION

- The DSS will safely administer, completely document, and communicate appropriately according to acceptable standards, on issues related to medication administration.

Let's Start With…

THE BASICS

EFFECTIVE HANDWASHING

- Handwashing is the single most effective way to prevent the spread of germs.
- It is the most important factor in the control of communicable diseases.

EFFECTIVE HANDWASHING…

- Handwashing should be done:
  - Before and after giving direct care
  - Before medication preparation
  - After each contact with blood or body fluids
  - Whenever gloves become contaminated and after glove removal
  - Before eating
  - After toileting
  - When hands are soiled, including after sneezing, coughing, or blowing your nose

EFFECTIVE HANDWASHING…

- When handwashing with soap and water is not feasible:
  - Commercially packaged antiseptic hand cleaners or towelettes may be used according to manufacturer's instructions.
  - When antiseptic hand cleaners or towelettes are used, hands should still be washed with soap and running water as soon as feasibly possible.

EFFECTIVE HANDWASHING…

- Wet hands under warm running water
- Apply 1 teaspoon of liquid soap
- Keep hands lower than elbows
- Wash with friction—fingers, palms, back of hands, and wrists for:
- 20 seconds (routine)
- 90 seconds (grossly contaminated)

EFFECTIVE HANDWASHING…

- Rinse thoroughly under running water
- Dry hands thoroughly with disposable paper towel
- Turn off faucets with paper towel
- Dispose of paper towel properly

Basic Overview of Body Systems

As a Direct Support Staff Person it is important for you to have a basic understanding of the body systems and how they work!

Skeletal

- Bones and Cartilage
  - ✓ Supports and Protects

Muscular

- Joints and Muscles
  - ✓ Moves and Shapes

Nervous

- Brain, Spinal Cord, Nerves
  - ✓ Controls and coordinates bodily activities
  - ✓ Carries impulses to and from the brain

Circulatory

- Heart, Blood Vessels, Lymph
  - ✓ Carries nutrients and oxygen to the cells via the blood
  - ✓ Removes waste

Respiratory

- Mouth, Nose, Trachea, Lungs, Bronchi, Alveoli
  - ✓ Provides air (oxygen) to the cells
  - ✓ Removes waste such as carbon dioxide

Reproductive

- Ovaries, Uterus (female); Testes (male)
  - ✓ Supports procreation

Urinary

- Kidneys, Ureter, Urinary Bladder, Urethra
  - ✓ Removes waste from the blood
  - ✓ Produces urine
  - ✓ Maintains water balance

Gastrointestinal

- Mouth, Esophagus, Stomach, Liver, Gallbladder, Small & Large Intestine, Pancreas
  - ✓ Takes in food and prepares it for use by the body
  - ✓ Excretes waste (feces)

Endocrine

- Thyroid, Pancreas, Testes, Adrenal Glands
  - ✓ Secretes chemicals called hormones that regulate body functions, metabolism, and reproduction

Integumentary

- Skin, Sweat and Oil Glands
  - ✓ Protects the body from harmful germs, helps regulate temperature
  - ✓ Serves an excretory function

Sensory

- Eyes, Ears, Nose, Mouth and Skin
  - ✓ Sight
  - ✓ Hearing
  - ✓ Smell
  - ✓ Taste
  - ✓ Touch

Communicable Diseases and Standard Precautions

An OSHA Requirement

You should be trained before attempting any task during which you may be exposed to blood or body fluids.

You should be re-trained each year.

Communicable Diseases

- A communicable disease is an **illness** caused by a specific microorganism that is capable of producing infection or infectious disease.

Communicable Diseases…

- There are five factors that are essential parts of the process that characterizes communicable disease:

Five Factors

- A causative agent
- A reservoir
- A means of escape from the reservoir
- A means of transmission from the reservoir to a new host
- A means of entry into the new susceptible host

Factor # 1--Causative Agent

- Infection begins with the invasion of the body by a living organism which causes the disease
- The major categories of infection-causing organisms are:
  - Viruses
  - Bacteria
  - Fungi and yeast
  - Ectoparasites
  - Helminthes

Viruses

- These are the smallest agents known. They can only multiply inside a living cell and do not respond to antibiotics.
  - Examples of diseases caused by viruses are the “flu”, the “chicken pox”, the common cold, hepatitis and AIDS
  - Treatment usually consists of controlling the symptoms until the body’s immune system is able to kill the virus itself. (AIDS, of course, the exception)

Bacteria

- These agents can multiply easily outside of living cells and respond well to antibiotics.
  - NOTE: A particular bacteria is sensitive to a particular antibiotic. Therefore while penicillin may kill one type of bacteria, another type of bacteria may be resistant to it. If an antibiotic is not taken at prescribed intervals or for the prescribed duration, resistant bacteria may form, making the disease much more difficult to treat.

Bacteria…

- Examples of diseases caused by bacteria are “strep throat”, some pneumonias, salmonella
- Antibiotics: Keflex, Penicillin, Augmentin

Fungi and Yeast

- These agents can multiply outside of living cells and are sensitive to medications. They grow particularly well in warm, moist and dark environments.
  - Examples include vaginal candidiasis ("yeast infection"), ringworm, onchomychosis or fungal infection of toenails, "athlete's foot", and "jock itch". Thorough drying is very effective in preventing fungal infections.
  - Treatment: Anti-fungals-Tinactin

Ectoparasites

- These organisms live superficially on the skin or hair; they are sensitive to chemical treatment.
- Examples include lice and scabies mites
- Chemical treatment of all close contacts is necessary (Nix, Kwell)

Helminths

- These organisms enter through the gastrointestinal tract of humans or animals and may migrate to other parts of the body.
- Examples include trichinosis (usually acquired by consuming improperly cooked pork), hookworm, round worm.
- Treatment consists of medications which are given to all close contacts.

Factor # 2—Reservoir

- Infecting organisms must have places where they can live and multiply.
- These places are known as reservoirs of infection and are found mainly in human beings and in animals.

Reservoir…

- Some reservoirs include individuals who are not obviously ill but are capable of transmitting the disease to others.
- Example: Someone who no longer has Hepatitis B, but remains a “carrier” and can transmit the virus to others.

Factor # 3--Means of Escape From Reservoir

- In order to bring about infection in another body, a causative agent must have a means of escape from the reservoir.
- Examples: The respiratory tract through the nose, nasal sinuses, trachea, bronchial tree and lungs; the gastrointestinal tract through feces; the urinary tract; an open lesion/sore through discharge on the surface of the body.

Factor # 4--Means of Transmission From Reservoir

- Once an agent has escaped from its reservoir, it must have either a direct or indirect mode of transmission to a new host
- Direct: agent goes from one body to the other with no intermediate source
  - The transmission of syphilis from one person to another

Means of Transmission From Reservoir…

- Indirect transmission--occurs when a person with a cold sneezes into a tissue and another person later uses the tissue
  - Virus is indirectly transmitted from the tissue to the second host

Factor # 5--Means of Entry Into The Susceptible Host

- Having achieved transmission from a reservoir, an agent must gain entry to a new victim or host
- The main entry points:
  - *The respiratory tract*
  - *The gastrointestinal tract*
  - *The skin and mucous membranes (mouth, nose, eyes, vagina, rectum)*

Susceptible Host

- Even though an agent gains entry into the body, the disease does not necessarily occur.
  - The new host must be susceptible or vulnerable to the causing agent

Susceptible Host…

Certain states such as:

- *Stress*
- *Pregnancy*
- *Lack of proper nutrition and rest*
- *Age*
- *Pre-existing illness*

Can make an individual more susceptible or prone to communicable disease

Treatment of Communicable Disease

- Per Licensed Health Care Provider's Orders! PRN Orders as directed by the person's primary licensed health care provider!
- Examples of Symptomatic Treatment:
  - Tylenol for fever or muscle ache: 2 tabs every 4-6 hours
  - Robitussin for cough and congestion as directed

Treatment …

- Increase the body's resistance
  - Rest
  - Fluids (6-8 cups daily) unless the person is on fluid restrictions!

STANDARD PRECAUTIONS AND BLOODBORNE PATHOGENS

Standard Precautions

- The Centers for Disease Control (CDC) has recommended that blood and body fluid precautions be consistently used for all persons even though disease is not suspected.
- All persons should be considered potentially infectious for the HIV (AIDS) virus, the Hepatitis B virus and other blood-borne agents.

Standard Precautions…

- Standard precautions apply to blood, semen and vaginal secretions.
- Feces, nasal secretions, sputum, tears, urine, vomitus, or any other bodily fluid may contain blood, and should be treated with standard precautions as well.

Standard Precautions…

- The following guidelines should be followed at all times:
  - Use barrier precautions such as gloves or aprons if a blood or body fluid exposure is anticipated
  - Change all barrier precautions after contact with each person, if any barrier is torn, if a needle stick or other injury occurs
  - Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids
  - Hands should also be washed thoroughly after removal of gloves

Standard Precautions…..

You should ALWAYS use Standard Precautions if it's warm, and wet, and not your own!

Standard Precautions…

- Report any contact with blood or body fluids to an open wound or cut or to mucus membranes so that follow-up measures can be taken
- Surfaces containing blood or body fluids should be washed with bleach and water in a 1:10 concentration
- Contaminated clothing should be washed in hot water and dried in the dryer
- **Bleach and water solution needs to be re-mixed or re-made every 24 hours!**

Prevention and Control Measures

- Engineering Controls
- Work Practice Controls
- Good Housekeeping
- Immunizations
- Miscellaneous Controls

Engineering Controls

- Physical or mechanical systems your employer provides to eliminate hazards at their source. Examples are:
  - Self sheathing needles
  - Biosafety cabinets
  - Autoclaves
  - “Sharps” Containers

Work Practice Controls

- Specific procedures you must follow on the job to reduce your exposure to bloodborne pathogens or infectious materials. Examples are:
  - Do not bend, cap, shear, or break contaminated needles and other sharps
  - Use a mechanical recapping device for contaminated needles
  - Place contaminated sharps in sharps containers
  - Report any sharps containers that are not easily accessible

Work Practice Controls…

- *HANDWASHING*
  - the single most important measure to prevent the spread of communicable diseases is hand-washing. A vigorous rubbing together of all surfaces of lathered hands followed by complete rinsing under a stream of warm water is recommended.

Work Practice Controls…

- Handwashing
  - if infectious material gets on your hands, the sooner you wash it off, the less chance you have of becoming infected
  - Helps prevent transmission of contaminated material to other surface

Work Practice Controls…

- Personal hygiene
  - When performing a procedure involving blood or other potentially infectious materials, minimize splashing, spraying, splattering and/or creating droplets.
  - Do not eat, drink, smoke, apply cosmetics or lip balms, or handle contact lenses where you may be exposed to blood or other potentially infectious materials.

Work Practice Controls…

- Avoid petroleum based lubricants that may eat through latex gloves
- Applying hand cream is OK if you thoroughly wash your hands first
- **NEVER** mouth pipette or suction blood or other potentially infectious materials
- Don't keep food or drink in refrigerators, freezers, cabinets or on shelves, countertops or bench tops where blood or other potentially infectious materials may be present

Work Practice Controls…

- All “sharps” must be disposed of properly in a “Sharps” container.
  - Containers are usually red in color or have a biohazard label
  - Must be kept within easy reach
  - Sharps containers must be emptied or replaced when they become full
  - Menses pads, soiled bandages and any other disposable object that has been exposed to blood or body fluids containing blood must be sealed, double bagged and disposed of properly

Work Practice Controls…

- Used disposable razors should be disposed of in a coffee can type container (puncture resistant).
- They can be disposed of in the usual trash but be sure the cover is sealed (taped shut if necessary) so nothing can fall out of the container.

Personal Protective Equipment (PPE)

- Equipment that protects you from contact with potentially infectious materials that may include gloves, masks, gowns, aprons, lab coats, face shields, protective eyewear, mouthpieces, resuscitation bags or other ventilation devices
- It must be provided at NO COST to you
- Your employer is responsible to clean, launder, repair, replace or dispose of protective equipment at no cost to you

PPE…

- Resuscitation Devices
  - Mechanical emergency respiratory devices and pocket masks are types of personal protective equipment designed to isolate you from contact with a victim's saliva during resuscitation
  - Required for CPR certification now

PPE…

- Gloves
  - Gloves are the most widely used form of personal protective equipment
    - Act as a primary barrier between your hands and bloodborne pathogens
    - Single use disposable gloves are used for medical, dental, or laboratory procedures
    - Heavy duty utility gloves may be used for housekeeping duties
    - Remember: gloves come in different sizes and types—be sure you request what fits you well, <u>and a material that you are not sensitive too (i.e. latex allergies, powder allergies)</u>

Gloves and Latex Allergies

BE SURE to inform the agency nurse or your supervisor if you have a known allergy to latex.

If you have a latex allergy, a different type of glove will be provided for you by your employer.

Latex Allergies

- Signs & Symptoms of a Latex Allergy may include:
  - Skin rashes, hives, swollen skin, nasal and/or eye irritation
  - A person who is very sensitive/allergic to latex might have severe symptoms such as asthma, coughing, wheezing or difficulty breathing. These symptoms require immediate medical care and treatment!

PPE…

- You must wear gloves when you anticipate hand contact with blood, potentially infectious materials, mucous membranes or non-intact skin
- If you are allergic to disposable gloves, your employer will provide hypoallergenic gloves, glove liners, powderless gloves or another alternative
- Since gloves can be torn or punctured by sharps, bandage any cuts before gloving
- Replace single use disposable gloves as soon as possible if contaminated or damaged

PPE…

- Gloves
  - Glove Removal

    1. Take hold of the first glove at the wrist.
    2. Fold it over and peel it back, turning it inside out as it goes. Once the glove is off, hold it with your gloved hand.
    3. To remove the other glove, place your bare fingers inside the cuff without touching the glove exterior.
    4. Peel the glove off from the inside, turning it inside out as it goes. Use it to envelope the other glove.

Glove Removal

The key to REMOVING gloves is -

"Dirty to Dirty, Clean to Clean "

PPE…

- Gowns or aprons
  - Must be impervious and worn when there is a potential for blood or body fluid splatters or sprays
- Eye protection
  - Goggles, protective shields, or glasses must be worn when there is a potential for a splash, spray, splatter, or droplets of blood or body fluids

PPE…

- Masks
  - Should be worn when there is a potential for a splash, spray, or splatter of blood or body fluids, whenever eye protection is used and when the person is on respiratory precautions
- Resuscitation devices
  - One way mouthpiece, resuscitation mask or other ventilation device should be used during all resuscitations

PPE…

- Exception to the rule:
  - If you believe using protective equipment would prevent proper delivery of healthcare or jeopardize your safety or that of a co-workers', you may temporarily and briefly abandon its use in an emergency.

Housekeeping

- Good housekeeping protects every Direct Support Staff Person
  - Be sure to familiarize yourself with your agency's ***Exposure Control Plan*** and know where it is kept. It lists housekeeping specifics and informs you of the steps to take in case of accidental exposure. Here are some general rules:

Housekeeping…

- Clean and decontaminate surfaces at the end of each shift and after being contaminated
- Do not pick up broken glass with gloved or bare hands. Use tongs, forceps, or a brush and a dustpan
- Use sharps containers!
- Handle contaminated laundry as little as possible and with minimal agitation. Place soiled laundry in labeled or color coded leak proof bags or containers. WEAR GLOVES while handling soiled linens!

MRSA and VRE

- Methicillin-Resistant Staphylococcus *aureus* (MRSA)
- Vancomycin-Resistant Enterococcus (VRE)

antibiotic-resistant bacteria

MRSA and VRE…

- *WHEN GIVING DIRECT CARE TO PERSONS WITH MRSA OR VRE:*
  - Wash your hands before and after any treatment given to the person
  - Wear gloves and a gown whenever you will have direct contact with the person's wound, mouth, or nose (brushing teeth, emptying drainage bags, changing dressings)
  - Keep your hands away from your face and mouth while working

MRSA and VRE…

- Wash your hands before eating.
- Wash linens and clothing soiled with bodily fluids in washing machine with hot water and detergent. If bleach can be used, add one cup of bleach.
- Use red plastic bags to dispose of soiled tissues, bandages, bandaids, and gloves. Close and secure the bag tightly, double bag, and discard in lined trash container with a lid.

Immunizations

- Roll up your sleeve!
  - Immunization is a process by which susceptible hosts are artificially prepared to resist infection by a specific disease agent.
  - Examples of vaccines available for immunization are: measles, mumps, rubella, diphtheria, pertussis, tetanus, polio, influenza and Hepatitis B.

Immunizations…

- Hepatitis B Vaccination
  - Hepatitis B is a viral infection caused by the Hepatitis B virus (HBV)
  - Most people who get HBV recover completely but 1–2 % die and 5–10% become carriers and have no symptoms
  - Some may develop chronic active hepatitis and cirrhosis of the liver.
  - Hepatitis B vaccination can prevent acute hepatitis and also reduce illness and death

Immunizations…

- The Vaccine
  - Series of 3 non-infectious shots made of highly purified Hep B antigen
  - 3 doses given over a 6 month period
  - Vaccine is not to be given to persons who are allergic to YEAST
  - Persons who are infected with HBV but get the immunizations may still develop clinical hepatitis in spite of immunization

Immunizations…

- Possible Side Effects—a few persons develop:
  - Tenderness and redness at the site of the injection
  - Low grade fever may develop
  - Headache
  - Dizziness
  - Nausea
  - Mild fatigue

Miscellaneous Controls

- An individual with a fever of 100 F. or more (by mouth) should stay home and avoid contact with other individuals in the home as much as possible until the temperature is normal for 24 hours
- DSS who have fevers of 100 or more (by mouth) should not do direct care with individuals or other staff until temperature is normal for 24 hours

Miscellaneous Controls…

- Any individual or DSS with any signs of gastrointestinal or respiratory infection (i.e., nausea, vomiting, diarrhea, sneezing, congestion, coughing, etc.) should not be involved in food preparation until the symptoms are absent for 24 hours.

Miscellaneous Controls…

- Any individual or DSS with a skin infection should have it covered appropriately unless otherwise advised by the physician or group home nurse.
- Individuals should wear shoes or slippers when in common areas and “tongs” in the shower.
- New toothbrushes should be used following a respiratory or gastrointestinal illness.

Miscellaneous Controls…

- Utensils, cups and glasses should be washed in the dishwasher, when possible or hot, soapy water when a dishwasher is unavailable
- Only disposable tissues should be used. Handkerchiefs harbor germs and assist in the spread of infection
- Any rash should be treated as potentially infectious and reported to the agency nurse.

WELLNESS AND THE PREVENTION OF ILLNESS

Good Hygiene

- Promoting good personal and oral hygiene.
  - Instruct and model

Rest and Relaxation

- Understanding the importance of obtaining adequate rest, relaxation and the avoidance of stress
  - What stress does to the body
    - How do <u>you</u> feel when you are stressed
  - Ways to minimize stress.
    - How do <u>you</u> minimize stress?

Exercise and Stress Reduction

- Understanding the importance and benefits of exercise
  - Basic exercise needs for you and the people you support
    - Does an active life replace exercise?
  - Exercise as a means of strengthening the body's systems and reducing stress
    - Muscle and bone deterioration vs. maintenance of strength

Social Health Risks

- Knowledge of the health risks associated with alcohol, cigarettes, and drugs.
  - What are some common health problems related to alcohol?
  - What are some common health problems related to smoking?
  - What are some common health problems related to illicit drug use?

Social Health Risks…

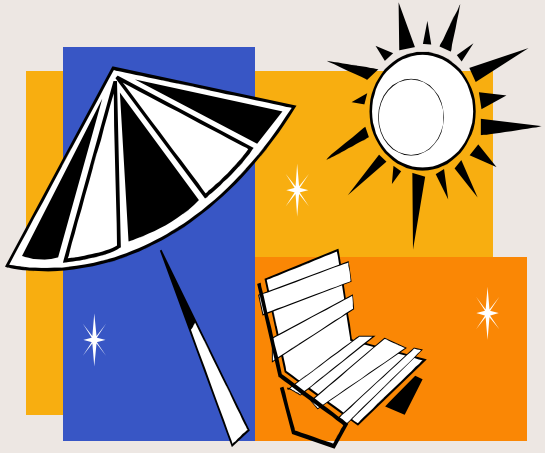
- Helping the individuals you support understand the potential problems and make decisions for a healthier lifestyle
  - Offering good choices
  - Educating individuals about these choices

Good Nutrition and Adequate Hydration

- Promoting good nutrition and hydration.
  - The new food pyramid
  - Simple techniques for low fat, low cholesterol cooking
  - Assisting the people you support in making better dietary choices.
  - Modeling and encouraging healthy choices

Sun Safety

- Assisting individuals in the use of sunscreen products and in avoiding sun exposure—umbrellas, sunscreen, shade
- Modeling safe sun exposure



Standard Precautions

- Practicing Standard Precautions and prevention of transmission of communicable diseases.

- Hand washing
- Use of gloves
- Staying home when sick!

Safe Environment

- Assist individuals to maintain a safe, clean environment
- Living area should:
  - Be free from clutter
  - Be cleaned on a regular basis according to agency policy
  - Be free from electrical hazards
  - Be equipped with smoke and carbon monoxide detectors

Safe Environment…

- Grab bars installed in bathroom if walking or balance is impaired
- Durable medical equipment kept in good repair (wheelchair brakes, walker tips, shower chair safety)

Personal Hygiene

Personal Hygiene…

- Remember: The rinse free soaps, and hand cleaners are not a replacement for good handwashing—they are something to use until you get to soap and water.
- They have been proven to not remove dirt and germs—they will kill <u>some</u> of the bacteria

Personal Hygiene…

- Personal hygiene enhances an individual's physical and emotional well-being. But when an individual is dependent on you to keep his/her hair, skin, nails, and mouth clean, they can experience a deep loss of independence and self esteem.

Personal Hygiene…

- Hygiene doesn't just keep a person clean– it can:
  - Help keep the skin intact to fight infection and prevent injuries
  - Remove dirt and germs from the skin's surface, reducing the risk of infection
  - Keep the mouth and gums healthy, which makes eating easier and therefore promotes good nutrition
  - Make the person more comfortable and relaxed
  - Boosts the person's morale!

Personal Hygiene…

- In most cases, it is best to assist the individual rather than do all the work for them.
  - Keeps the individual from becoming totally dependent on you
  - Relieves the workload of the caregiver
  - Helps exercise the motor skills of the individual

Personal Hygiene…

- Gather your supplies ahead of time!
- Avoid drafts
- Wash hands before you start
- Use a light blanket to allow for privacy
  - How else do we allow for privacy??

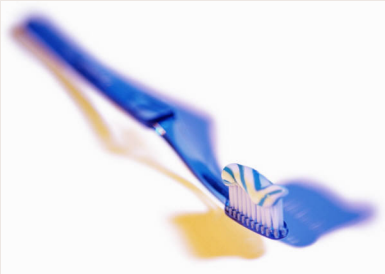
Personal Hygiene…

- Hair Care
  - Keeping an individual's hair clean is difficult if he/she is confined to a bed or unable to get to a source of running water. You can do it with the aid of a shampoo trough or "No Rinse Shampoo"
  - Gather all equipment ahead of time
  - Absorbent towels and waterproof sheeting are essential
  - Always remember to complete the task by brushing, combing, or styling the individual's hair!

Personal Hygiene…

- Showering
  - Consider installing grab bars to help an individual get in and out of a tub/shower safely
  - Apply non slip mats or treads on the shower floor
  - Place a shower bench/chair in the bath so that the individual can sit
  - Check and adjust the water temperature PRIOR to the individual getting in

Personal Hygiene…



- Mouth Care
  - Soft toothbrushes
  - Small amount of toothpaste, especially for those who do not expel or spit it out well
  - Up and down in small circular motion
  - Change toothbrushes often—definitely following colds and flu

Personal Hygiene…

- Dentures
  - Dentures need to be cleaned at least as often as teeth would normally be brushed
  - *Be careful not to drop them—they break easily*
  - Ensure that they are well fitting and no sores are developing in the individual's mouth
  - Paste vs. powder—either one: <u>apply sparingly</u>

Personal Hygiene…

- Feet need to be thoroughly washed and dried daily to prevent infection, cracked skin, and possibly injury.
- Nails should be trimmed straight across and filed at the edge.
- ***Toenails of an individual with diabetes should be trimmed only by a Podiatrist!***

Personal Hygiene…

- Foot Care
  - People rely on their feet for a lot! 75% of people have problems with their feet at some point in their lives
    - Ill fitted shoes
    - General wear and tear
    - Bone deformities
    - Illness and injury
- Individuals with diabetes should have their feet checked thoroughly <u>each and every day</u>
  - <u>Report any injury promptly to the agency nurse!</u>

Personal Hygiene…

- When washing body parts:
  - Work from top to bottom to allow germs/bacteria to run down to floor
  - Work from center to edges—inner to outer body parts
  - Wash genital areas with a separate wash cloth
    - Always wash from front to back—never back to front
  - Always wear gloves
  - Keep YOUR nails trim to avoid scratching the individual.
- Thorough drying with a patting, not rubbing, gesture to prevent body temperature change and development of fungi type infections

Personal Hygiene…

- Menses Care for Women
  - Ensure frequent hygiene care
  - Encourage the individual to be as independent as possible

Personal Hygiene…

- *Always remember*
  - When performing hygiene an individual is at risk for injury, his/her personal space is invaded, and it can be somewhat intimidating. Make the experience as comfortable as possible for the individual and it will be easier on both of you!

Skin Care

- The skin is the largest organ in the body
  - *We often take it for granted*

Skin Care…

- To maintain maximal skin health and prevent skin breakdown always remember to:
  - Be aware that pressure areas may develop especially on bony prominences
  - Keep the skin clean and dry
  - Position the body correctly to avoid pressure
  - Keep linens wrinkle free

Skin Care…

- Always remember to:
  - Frequently change the individual's position if he/she is unable to do so independently
  - Avoid direct contact with rubber or plastic underpads to avoid irritation
  - Massage the skin gently—never rub very hard
    - Never rub or massage skin that is persistently reddened

Basic HealthCare Treatments

Basic HealthCare Treatments

- The DSS will not initiate the following treatments unless they are included as part of a written nursing plan of care.
- These treatments would not be implemented without person specific training by a qualified medical professional.

Only With Person Specific Training…..

- Monitoring and recording body temperature—rectal, oral, tympanic and axillary; vital signs; blood pressure and pulse
- Recording height and weight
- Administering compress and/or soaks for hands, feet and other extremities

Vital Signs

- Blood Pressure—Normal Values
  - In a healthy person 90/60 – 140/90 are considered within normal range
    - Upper limits of normal are 140/90

    Hypotension ?

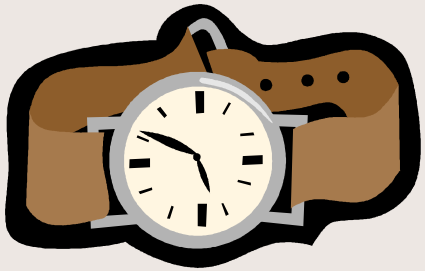
    Hypertension ?
  - If you are required to perform blood pressure measurements, you will be instructed further at that time.

Vital Signs…

- **Pulse—General**
  - There are 2 basic ways to measure the heart rate and rhythm.
    - Radial—at the wrist
    - Apical—over the heart
  - Heart rate is measured for 1 full minute when taken apically, and a stethoscope must be used
  - Heart rate is measured for 30 seconds and multiplied by 2 when taken radially
  - Unless otherwise noted, it will be assumed the heart rhythm is normal

Vital Signs…

- Pulse—equipment needed
  - Watch with a second hand
  - Stethoscope for apical pulse



Vital Signs…

- Pulse - Radial Procedure
  - Have the individual in comfortable position, with arm supported
  - Place first two fingers over the artery using only enough pressure to feel pulse beat distinctly *(NEVER USE YOUR THUMB—IT HAS ITS OWN PULSE)*
  - Count beat for 30 seconds and multiply by 2
  - Record in space indicated

Vital Signs…

- Pulse - Apical
  - This is a program specific task and if required to do so, you will be further trained in this area.

Vital Signs…

- Pulse—Normal Values
  - 60-80 beats per minute (bpm)
  - Tachycardia—fast heart rate (greater than 100 bpm)
  - Bradycardia—slow heart rate (less than 60 bpm)

Vital Signs…

- Respirations—Procedure
  - Since people will become conscious of their breathing if stared at and measurement will not be accurate, always be subtle in counting breaths. Count respirations while still feeling pulse.
  - Watch the rise and fall of the individual's chest for 30 seconds and multiply by 2. If breathing is abnormal/irregular, count for 60 seconds—a full minute.
  - Record rate, depth and any irregularities of respirations in appropriate place
  - Normal Values—12-18 breaths per minute

Vital Signs…

- *Always remember: a complete breath consists of breathing in **and** out. You should count the series of the chest rising and falling as one breath.*

Vital Signs…

- Temperature—Equipment
  - Oral Temperature—use digital with sheath
  - Axillary—use digital with sheath
  - Rectal Temperature—use rectal thermometer. Do not perform this procedure without specific training/instruction from the agency nurse.
  - Tympanic—requires an electronic measuring device

Vital Signs…

- Temperature—Procedure—**Oral**
  - Digital: always refer to specific manufacturer instructions for use (*demonstration of use of a digital thermometer*)
  - ✓ Normal 98.6 oral
  - ✓ Record reading

Vital Signs…

- Temperature—Procedure—**Axillary**
  - Have individual lie down, place thermometer in axilla. Bring arm forward (like hugging) and hold thermometer in place for 5 full minutes
  - ✓ Normal 97.6 (A) axillary—(note the lower norm)
  - ✓ Record Reading

Vital Signs…

- Temperature—**Rectal**
  - The truest most accurate of temps but the most invasive
  - Only done per nurses instruction. If you will be doing this procedure, the nurse at your agency will provide specific training.
  - ✓ Normal 99.6 (R) (note the higher norm)
  - ✓ Record reading

Vital Signs…

- Temperature—Tympanic
  - Because each tympanic device is slightly different, be sure to read the specific manufacturer instructions for the device that you are using (*demonstration of use of a tympanic device*)
  - Generally, for adults, pull ear up and back to allow the ear canal to open up fully
  - Be sure to implant the end of the device firmly in the ear in order to get an accurate temperature
  - ✓ **Record reading**

Compression Stockings

- Life with “elastic” compression stockings:
  - Put stockings on prior to walking around to help prevent fluid accumulation in the legs.
  - If ordered, the stockings should be worn whenever an individual is out of bed—not just when walking around.

Compression Stockings…

- Leg elevation still needs to take place to help avoid edema
- Walking may be beneficial
- Can increase circulation when used properly
  - Should NEVER be used on an individual who has a history of DEEP VEIN THROMBOSIS

Compression Stockings…

- Don't get discouraged: Applying compression stockings takes some practice!!

Durable Medical Equipment

- DME often plays a major part in our lives:
  - Wheelchairs, walkers, shower benches, canes, crutches, oxygen, CPAP, BiPap
  - Each piece needs to be cleaned on a regular basis with an approved cleaner (soap and water usually)
  - Must be kept in good repair and adjusted properly
  - Call the DME company for repairs—do not attempt to repair it on your own!!
  - ***Always*** read any and all instructions that are included!

Intake and Output

- I & O's must be kept for many reasons. Just a few things that might indicate the monitoring of I & O's are:
  - Diabetes
  - Congestive heart failure
  - Fluid volume overload
  - Dehydration
- Use your agency's approved format
- Record everything that is taken in—including food and fluid given with meds
- Record all output—if an individual is incontinent, you may need to weigh the incontinence briefs.

Specimen Collection

- At times it is important to obtain a clean urine or feces specimen
  - You will be provided with a container to do a “clean catch”
  - A “clean catch” is not sterile, but it should be clean so an antiseptic wipe may be necessary
  - Do NOT touch the inner edge of the specimen container!
  - Label the container appropriately: name, date, etc.

Height and Weight

- Height and weight may be needed routinely to assess an individual's health and nutritional status
  - A decrease in height can be a sign of osteoporosis in both women AND men
  - An increase or decrease in weight can signal depression, diabetes, CHF, and many other medical illnesses

Compression and Soaks

- There may be times when you are required to do compression therapy and soaks:
  - Compression for extremities must only be done with an order from a licensed health care provider
  - Always follow the exact temperature for soaks and length of time
  - Soaks can include Epsom salt soaks, wax treatments, oil treatments and many can cause harm if done incorrectly

Documentation

- Document all treatments according to your agency's policy:
  - Do NOT forget to document
  - Watch for changes
  - Communicate your findings!
- Remember, treatments are as much a part of an individual's treatment plan as medications!

Signs and Symptoms of Illness and Injury

Observing and Reporting: When and How

- Observing and reporting physical, emotional, and behavioral changes is very important for understanding an individual's health condition and how a condition is, or is not, changing.
- You, as a Direct Support Staff Person are particularly important. No one else has as much close day to day contact with the individual.

Responsibilities

- You **are** responsible for reporting changes in an individual's condition to the agency nurse or your supervisor.

- You **are not** responsible for interpreting or explaining changes in an individual's condition.

Responsibilities…

- Quality of information
- Clear and speedy reporting/communication

Observation

- Careful observation takes practice.
- Changes may be sudden and dramatic (i.e. a sudden collapse)
- Changes may be subtle and harder to detect (i.e. drowsiness or confusion)

Observation…

- When an individual has limited communication skills, we must watch even more closely for signs of behavioral, emotional or physical change.
- Pain or discomfort is often a reason for grouchy, overly sensitive, non-cooperative, or agitated behavior.

Observation…

- It is important to remember that the Direct Support Staff observe, record, and report ONLY. They do not interpret, diagnose or attempt to explain the changes.

Reporting

- No clinical assessment or medical decisions/judgments related to medication administration
- Direct Support Staff report changes to the appropriate clinicians

Recognizing Signs of Illness

- When illness occurs, there are often physical changes that you will notice. These changes that YOU can see, hear, smell or feel are called SIGNS of illness.
- Changes that an INDIVIDUAL can feel inside his or her own body are called SYMPTOMS of illness.

Recognizing Signs of Illness…

- You often can't see the SYMPTOMS of illness that an individual is feeling.
- If you learn to recognize the signs and symptoms of illness in the individuals you work with, you can help prevent a small or minor health issue from becoming a major health concern.

Signs of Infection

- Elevated body temperature
- Swelling
- Redness
- Changes in skin temperature, appetite or sleep patterns

Symptoms of Infection…

- Generalized: fever (temp over 100 F), chills, muscle ache, general malaise
- Ear: pain, drainage
- Respiratory: sneezing, congestion, coughing, sinus pain

Symptoms of Infection…

- Teeth: pain, drainage, swelling
- Skin/mucous membranes: redness, swelling, drainage, pain, heat, itching, rash
- Gastrointestinal: nausea, vomiting, diarrhea
- Genitourinary: itching, pain, burning, frequency of urination

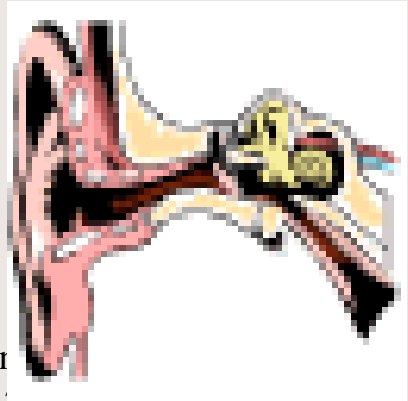
SKIN AND MUCOUS MEMBRANES

- Change in color
- Change in feel
- Change in temperature
- Increased sweating
- Wrinkles
- Rashes
- Itchy
- Scrapes
- Bruises
- Swelling
- Cuts/lacerations
- Sores
- Oily feeling
- Complaints of pain or discomfort

EARS

- Painful
- Swollen
- Red
- Rubbing
- Hitting

- Complaints of:
  - **Ringing**
  - **Buzzing**
  - **Itching**
  - **Pain**

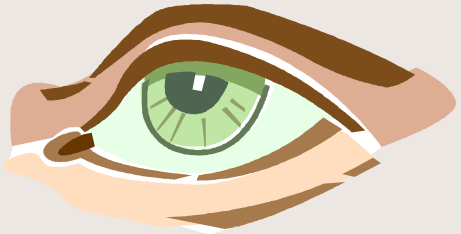


GUMS

- Swollen
- Blistered
- Bleeding
- Sores

- "Juicy Fruit" smelling breath
- Foul smelling breath

EYES



- Dull
- Cloudy
- Red
- Bloodshot
- Yellow
- Dry

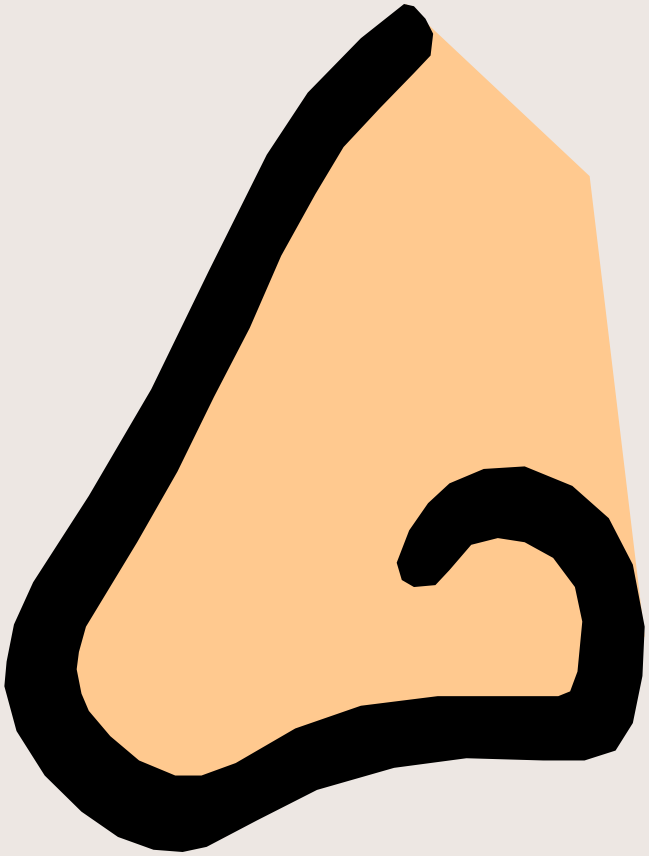
- Yellow drainage
- Crusty
- Puffy
- Red
- Bruised
- Watery

EYES…

- Complaints of these problems:
  - Burning
  - Blurring
  - Double vision
  - Seeing spots
  - Headaches

NOSE

- Red
- Swollen
- Running
- Bleeding
- Rubbing



LIPS

- Pale
- Blue
- Dry
- Cracked
- Swollen
- Blisters

TONGUE

- Dry
- Cracked
- Coated (white)
- Raw
- Swollen

ABDOMEN

- Gas
- Nausea (sick stomach)
- Burping
- Vomiting
- Distended (swollen)
- Pain
- Hard

URINE

- Change in usual amount
- Frequency
- Dribbling or scant amount
- Change in color
- Unusual odor
- Smells sweet like "Juicy Fruit" gum
- Complaints of burning

BOWEL MOVEMENTS

Small amount	Light	Green
Dark red	Black	Hard
“Accidents”	Frequent	Watery

No bowel movement for 3 days

(remember to document BM’s if charting is required)

WALKING

- Change in walking style
- Limping
- Refusal to walk

SLEEPING

- Sleeping more often or for longer periods of time
- Sleeping less often
- Waking up often during the night
- Taking many naps in the day
- Snoring

BREATHING

- Difficulty breathing
- Noisy
- Cough
- Gasping
- Congestion
- Changes in quality or character of sputum
- Wheezing

•Difficulty breathing is always an indicator to

<u>call 911</u>

CARDIAC (Heart Attack)

- Delay of treatment spells DANGER, minutes count, know the signals!
  - CHEST DISCOMFORT AND DENIAL ARE THE TWO MOST COMMON SIGNS
- ***What***: pressure, fullness, squeezing, tightness or pain in chest
- ***Where:*** Center of chest, behind breast bone, sometimes down the arm
- ***How long:*** Usually longer than 2 minutes and may come and go

CARDIAC (Heart Attack)

- ***Other symptoms may include:***
  - Sweating
  - Nausea
  - Shortness of breath
  - Weakness
  - Pale color and/or "blue lips"
  - ✓ Note: Pain may not be severe and the individual may not look ill.

CHOKING HAZARDS

- Difficulty swallowing
- Drooling
- Double gulping
- Eating too quickly

NEUROLOGICAL

- Increased seizure activity
- Changes in mental status (confusion, lethargy)
- Changes in gait
- Changes in behavior
- Weakness in extremities
- Tingling/numbness in extremities

MENTAL HEALTH

- More active
- Less active
- Self abusive
- Crying
- Drowsy
- Shouting/yelling
- Unusually angry
- Unusually inattentive
- Unusual restlessness

ENDOCRINE

- Increases in thirst, urination, or weight loss
- Loss of appetite
- Sweating
- Change in sleeping pattern

REPRODUCTIVE

- Change in menses
- Increased discharge
- Change in color or odor of discharge
- Complaints of pain, itching, or burning

GASTROINTESTINAL

- “Upset” stomach
- Nausea
- Vomiting
- Diarrhea
- Bloated

NOTE!

- This is by no means a complete list of all the possible signs and symptoms of illness.

Objective vs. Subjective

- Objective reporting is a statement of the facts—no opinions, no fluff, strictly the facts.
- Subjective reporting is a statement of your opinions, your feelings.

Objective vs. Subjective

- Which type of reporting is more likely to help an individual who is ill?

  - Why?

FIRST AID AND EMERGENCY MEDICAL PROCEDURES

EMERGENCY SITUATIONS

- Call 911 for the following:
  - Difficulty breathing or cessation of breathing
  - Uncontrolled seizure activity
  - Severe injury
  - Severe bleeding
  - Chest pain or pressure
  - No pulse

EMERGENCY SITUATIONS

- Calling 911 will activate the Emergency Response System.
- While waiting for help to arrive, provide emergency first aid treatment as you have been trained.
- After the individual is out of immediate danger, be sure to notify the nurse, health care practitioner, and/or your supervisor.

Non Emergency Situations

- Non life threatening situations are when the health or safety of the individual may be at risk but the situation is not life threatening and there is no risk of serious or lasting injury. These situations include, but are not limited to:
  - Mild diarrhea, nausea, occasional vomiting, sleep disturbances, changes in appetite, increased irritability, low grade fever

ACCIDENTS AND ILLNESSES

Accidents and Illnesses

- First aid, as outlined in this manual, is not a substitute for care from a medical professional.
- Your agency nurse or other trained professional should be contacted when seeking further treatment.

Accidents and Illnesses

- The purpose of first aid it to prevent further serious injury following an event.
- It is immediate and temporary treatment given in case of an accident or sudden illness.

Calling 911

- Because many of the individuals we provide services for have a high tolerance for pain and an impaired ability to communicate, we emphasize the availability of the 911 Emergency Response System.

Calling 911

- Remember: you are trained in performing *basic first aid*—most of you are not trained ***medical*** professionals
- ALWAYS call 911 when you feel a situation is beyond what you, as a staff person, can safely handle

When should I call 911?

- Knowing when to call 911
  - No hard and fast rules
  - If you feel that a situation is beyond your control or level of training, then 911 is always the best option

  – ***"When in doubt, call 911"***

Call 911 if the individual:

- Is or becomes unconscious
- Has trouble breathing or is breathing in a strange way
- Has chest pain or pressure
- Is bleeding severely
- Has pressure or pain in the abdomen that does not go away

Call 911 if the individual:

- Is vomiting or passing blood rectally
- Has seizures, severe headache, or slurred speech (if this is UNUSUAL for the person)
- Appears to have been poisoned
- Has injuries to the head, back or neck
- Has possible broken bones

Emergency Medical Procedures

- CHECK—check the individual for injuries
- CALL—call for help or call 911
- CARE—care for the injuries until help arrives

First Aid

- Dial 911 for Medical, Fire, or Police Emergency
  - Give complete address with directions (if night time, turn on outside lights)
  - Give telephone number
  - Give brief but distinct description of accident and/or injury
  - Do NOT hang up the telephone prematurely. Allow time to be questioned if possible. Hang up telephone after they do

CPR

- This curriculum will not include a training on CPR.
  - You are required to be trained in CPR by a specially trained professional

General First Aid

- Check breathing and pulse
- Control heavy bleeding
- Prevent further injury-Move the individual only if he/she is in danger
- Treat for shock in any major emergency
- Do NOT attempt any first aid that you are not familiar with

Breathing

- If an individual is not breathing:
  - Establish an airway
  - Initiate CPR

Bleeding

- Apply direct pressure to site using some type of barrier such as:
  - gloves
  - sterile compress
  - maxi pad
  - clean cloth
  - plastic shopping bag
  - bare hand (only as a last resort)
- Do not remove the original layer---put layer on top of layer if necessary

Bleeding…

- Always remember that when blood or body fluids are involved you are required to follow Standard Precautions!
- If gloves are not available, attempt to find some type of barrier such as a plastic bag or other leak proof material.

Bleeding…

- Elevate injured part above level of heart (unless broken bone suspected)
- If direct pressure fails, continue pressure with one hand and apply the free hand to the pressure point
- Continuously reassure the victim
- Treat for shock

Shock

- Shock is a major emergency! During shock, the circulation is disturbed causing:
  - Weak, rapid pulse
  - Lowered blood pressure
  - Pale, clammy skin
- All accident victims are prone to shock
- Keep the victim lying down
- Keep the victim's body temperature warm
- Elevate the legs 18" if no chest or head injury or complaints of pain upon elevation

Shock…

- Loosen tight clothing
- Monitor consciousness, vomiting, breathing
- Monitor rate of respirations and pulse

Bites

- Infection, rabies, and tetanus are all possible dangers, depending on the source of the bite
- All bites that break the skin should be considered dangerous (human and animal)
  - Wash the area thoroughly with soap and water
  - Apply triple antibiotic ointment and cover with a sterile dressing
  - Transport to medical professional with TETANUS information if possible

Blisters

- Cleanse carefully with soap and water
- Do NOT break blisters
- Apply sterile bandage (Bandaids)
- Avoid further pressure to the area (change shoes!)
- Administer prn pain medication if needed (and ordered)

Burns

- First Degree-redness, mild swelling, pain, no blisters
  - Place under running cold water or apply cold compress to affected area immediately
  - Notify the agency nurse according to your agency's policy

Burns…

- Second Degree-Redness, blotching, pain, may have blisters, increased swelling
  - Treat as first degree burn
  - Do not break blisters
  - Cover with sterile dressing
  - *Always seek further medical attention*

Burns…

- Third Degree-Charred skin, deep tissue damage, little pain, shock
  - Check breathing
  - Cover affected area loosely with sterile dressing
  - Treat for shock
  - Do not remove clothing stuck to burn area
  - ***Always call 911!!***

Burns (chemical)

- Quickly, but gently, flush with running water for 20 minutes
- Read label of chemical for instructions
- Apply clean, dry dressing
- *Seek further medical attention*

Burns (electrical)

- Do not treat electrical burns with water!
- Cover burn injuries with a dry sterile, or clean, dressing.
- Give care to minimize shock
- If lightening victim, look and care for life threatening conditions
- *Always seek further medical attention*

Choking

- ***Risk Factors***
  - Large, poorly chewed pieces of food
  - Ill fitted dentures
  - Increased activity with food or foreign objects in mouth
  - Various physiological anomalies that interfere with the ability to chew food and swallow effectively
- ***Focus On Prevention***
  - Cut food pieces small, especially for those wearing dentures
  - Discourage laughing and talking during chewing and swallowing
  - Discourage small foreign objects from being placed in the mouth

Choking…

- Perform abdominal thrust (formerly called the Heimlich maneuver) if an individual is showing signs of choking
- Do not perform abdominal thrust if the individual can speak—if speaking is present it means that air is being exchanged
- Do not do a “blind finger sweep”
- Do not slap on back to help clear airway

Convulsions

(refer to "seizure disorders" material)

- ***Always contact 911 if an individual has a seizure with no known seizure disorder or if his/her seizure status is unknown***

Eye Injuries-Foreign Bodies

- Keep from rubbing eye
- Have person blink frequently to create tears
- Wash your hands
- Wash eye with eye cup
- If not successful, bring upper lid down over lower lid
- Seek further medical attention if not successful

Falls

- Look for the symptoms of head injury, contact the nurse, attempt to inquire if there is a spinal cord injury based on evidence of tingling or numbness of any of the extremities
- If a head injury is apparent, ***call 911 immediately***
- If there appears to be injury beyond routine first aid, ***call 911 immediately***

Falls…

- Examine the individual before moving
- Do not move any limb which is in an awkward position
- Prevent movement of head and neck (roll the individual if he/she has to be moved to prevent further injury)

Falls…

- Prevention:
  - Remove scatter rugs
  - Encourage use of ambulation aids (walkers, canes, hemi walkers)
  - Maintain well lit walkways
  - Landscape lighting for night
  - Slippers on feet!
  - Grab bar installation!

Fainting

- Sudden loss of consciousness due to insufficient blood to the brain.
- Usually gains consciousness after being in prone position.
- Observe for breathing, loosen clothing
- Ensure privacy—keep onlookers away
- If vomiting, roll to side
- ***Call 911*** if not conscious after one minute

Frost Bite

- Always seek further medical attention for the treatment of frost bite
- Focus on prevention!

Head Injuries

- ***Minor***
  - Keep the individual lying down
  - Ice to reduce swelling
  - Tylenol, or other prn medication for pain <u>if a licensed health care provider's order is in place</u>
  - Seek further medical attention if there is:
    - Severe headache
    - Vomiting
    - Bleeding from nose, mouth, ears
    - Increased sedation within 2 hours

Head Injuries

- ***Major-loss of consciousness***
  - ***Call 911***
  - Check breathing
  - Treat severe bleeding
  - Do not move unless in imminent danger
  - Keep warm

Heart Attack

- Delay of treatment spells DANGER, minutes count, know the signals!
  - CHEST DISCOMFORT AND DENIAL ARE THE TWO MOST COMMON SIGNS
- ***What***: pressure, fullness, squeezing, tightness or pain in chest
- ***Where:*** Center of chest, behind breast bone, sometimes down the arm
- ***How long:*** Usually longer than 2 minutes and may come and go

Heart Attack…

- ***Other symptoms may include:***
  - Sweating
  - Nausea
  - Shortness of breath
  - Weakness
  - Pale color and/or “blue lips”

- Note: Pain may not be severe and the individual may not look ill.

Heart Attack…

- ***If you believe someone may be having a heart attack, call 911!***

Heat Cramps

- Includes muscular pains and spasms due to loss of salt via sweating (may be associated with heat exhaustion)
  - Legs
    - extend in straight position with foot flexed (toes up)
    - exert firm pressure with palm of hand to cramped muscle, gently massaging to help relieve spasm

Heat Cramps…

- Legs and abdomen
  - Give **sips** of salt water (1 tsp. salt/8 oz. Water) or sports drink every 15 minutes for one hour
    - Have the individual rest in cool place for one hour.
    - Encourage fluids
    - *If no improvement after one hour, seek professional medical attention*

Heat Exhaustion

- Symptoms include:
  - Fatigue Weakness Possible collapse

- ***<u>ALWAYS CALL 911</u>***

Heat Stroke

- May be fatal since body has lost it's ability to cool itself through perspiration
- Symptoms include:
  - Temp over 104 F.
  - Skin hot, dry, red
  - Strong, rapid pulse
  - May become irrational
  - May be unable to move
  - May progress to unconsciousness

Heat Stroke

- ***ALWAYS Call 911***

Insect Bites

- Bees
  - Remove stinger with outward scraping motion of fingernails
  - Do not pinch area of stinger (will release venom into surrounding tissue)
  - Apply ice or paste of baking soda and alcohol
  - Monitor for allergic reaction, i.e., swelling of throat, shortness of breath
    - Treat above symptoms as medical emergencies

Insect Bites…

- Wash the area with soap and water
- Pain and itch is often relieved by the application of:
  - ice cold water
  - baking soda paste
  - Adolph's Meat Tenderizer
- If the individual has a **Bee Sting Allergy**:
  - Follow instructions in Bee Sting Kit
  - ***Call 911 or transport to ER***

Nose Bleeds

- Sit the individual down with head leaned forward (do not lie down or tilt head back)
- Keep the individual calm
- Pinch nose closed for 10 minutes
- Release slowly
- Ice applied to the bridge of the nose can help to stop bleeding
- Do not blow or touch nose
- If bleeding persists, pinch closed for 5 additional minutes

Abrasions and Cuts

- Wash with soap and water
- Apply triple antibiotic ointment
- Cover with sterile bandage
- Use pressure over the bandage by the palm of your hand on the dressing directly over the entire area of the wound and pressing lightly

Important Things To Remember About Cuts

- If the edges of the skin do not fall together or when the cut is over 1 inch long, it may need stitches (sutures)
- If you are caring for a wound and you think it may need stitches, it probably does
- Stitches need to be placed within the first few hours after the injury
- It is NEVER wrong to have a deep, long or other serious cut checked out by a doctor

Puncture Wounds

- Deep Cuts
- Do NOT remove an impaled object
- Wash thoroughly with soap and water followed with peroxide
- Apply triple antibiotic ointment
- Cover with sterile dressing and follow your agency policy for notifying the nurse.
- Check date of tetanus. A tetanus shot is needed if longer than 10 years.

Splinters

- Remove with tweezers <u>if protruding</u>, then cleanse with soap and water
- Apply band aid
- If imbedded, seek medical attention.
- *If there are any signs of infection, seek further medical attention*

Stroke

- Cerebrovascular Accident (attack) CVA
- Symptoms:
  - Sudden weakness or numbness of face, arm, leg on one side of body
  - Loss of speech, trouble speaking, or understanding spoken language
  - Unexplained dizziness, unsteadiness or sudden falls
  - Dimness or loss of vision, particularly one eye
  - Loss of consciousness

Stroke…

- Warning signs may be temporary, lasting 24 hours or just a few minutes

- ***When any of these symptoms occur, CALL 911!***

Teeth-Trauma

- Knocked out
  - Keep the individual comfortable
  - Raise head slightly
  - Apply ice packs to face
  - Follow emergency procedure
  - Contact dentist for emergency appt or transport to ER
  - Keep tooth in glass or cup of milk and transport with the individual!

Unconsciousness

- Cause may be obvious or difficult to determine
  - Check breathing and treat any bleeding
  - Initiate CPR if necessary
  - ***Call 911***
  - Do not move the individual unless he/she is in imminent danger
  - **Give NOTHING BY MOUTH—NOTHING!**
  - Turn head to side for possibility of vomiting
  - Keep the individual warm, but not hot

Communications

- Alert others to the happenings via an accurate entry into the Daily Communication Log.
- Always complete a Health Concern or Accident/Injury form for any incidents of injury prior to the end of your shift.
- Provide an accurate account of the details—objective vs. subjective reporting.

- ***Remember—these forms become a part of the permanent records—accuracy is a MUST***

Emergency Rooms

- When arriving at the ER it is important to give an accurate description of the incident.
- Contact the Residential Director, Assistant Residential Director, Nurse or Coordinator as soon as possible.

Emergency Rooms…

- Bring a Continuity of Care form with current medication list with you.
- Bring an emergency medical fact sheet (or other agency form) with you for reference of other medical conditions, medications, allergies, licensed health care provider(s), and other contact persons.

Summary

- Swift attention to emergency situations is the best that you can do for anyone you support
- Try to stay calm and follow these guidelines as best as possible
- If you are not sure that you can handle the situation safely, call for help immediately
- **It is never wrong to call 911 in an emergency**
- *Whenever an emergency situation happens, notify your supervisor and the agency nurse immediately to ensure that any follow up treatment is planned as needed.*

Seizure Disorders

Basic Overview

Introduction

- A good understanding of seizure disorders is important.
- Learning the proper response to an individual having a seizure is very important.
- It *is especially* important for anyone responsible for the care of individuals with developmental disabilities.

Definition

- A seizure is defined as an episode of sudden involuntary muscle contractions and/or changes in consciousness, behavior, sensation or self-controlling functions.
- There are different types and causes of seizures (**not all seizures are caused by epilepsy**).
- The individual has no control or memory of the abnormal behavior exhibited during a seizure.

Causes

- There are many possible causes of seizure activity:
  - Head injuries
  - Rapid rise in body temperature
  - Structural brain lesions (such as a brain tumor)
  - Stroke
  - Arteriovenous malformations or cyst
  - Metabolic disorders (such as those caused by kidney or liver dysfunction)
  - Central nervous system infections
  - A possible genetic component (epilepsy)

Types Of Seizures

- Seizures can be divided into two main classifications:
  - Generalized seizures
  - Partial seizures

Generalized Seizures

- If the abnormal electrical activity spreads throughout the entire brain, all brain functions will be affected and the outcome is a generalized seizure.
- The individual will become unconscious for varying lengths of time depending on the type of seizure
- Tonic-clonic (grand mal)
- Absence seizures (petit mal)

Partial Seizures

- If the abnormal activity remains localized, it will affect the brain function only in that area and is, therefore, a partial seizure.
- A partial seizure may or may not involve unconsciousness.
- Examples of partial seizures include simple partial (Jacksonian) and complex partial (temporal lobe or psychomotor).

Common Types

- There can be as many types of seizures as there are different functions or areas of the brain.
- However, they can be categorized with the most common type of seizures being briefly described below:

Generalized Tonic Clonic

– Sequence:
  - Aura: for a few seconds before the seizure, the individual usually experiences an “aura”
  - Examples of an “aura” could be a feeling of weakness, dizziness, strange sensations in an arm or leg, numbness or smelling an unpleasant odor

Generalized…

- Epileptic cry: this is a cry or scream which precedes the loss of consciousness and falling down

Generalized…

- Tonic phase: the individual can make no effort to protect himself/herself from a fall and can easily become injured
  - In the tonic phase, the entire body becomes rigid or stiff, breathing may temporarily stop and the individual may appear cyanotic (blue skin tone). The jaws are fixed, the hands clenched and eyes are wide open
  - This stage lasts **only a few seconds**

Generalized…

- *Clonic phase*: jerking movements begin slight at first then increasingly more severe involving the entire body
- There may be frothing of saliva around the mouth and lips, the inside cheek may be bitten, and stools and urine may be passed involuntarily
- The clonic phase may last a minute or more

Generalized…

- *After the seizure or Postictal phase:* this phase often follows a tonic-clonic seizure and is characterized by confusion and agitation
- These symptoms are caused by the individual regaining consciousness from the seizure; however, the recovering brain is not yet able to process it
- The individual may not recognize others or understand what is being said to him/her.
- Most violence or agitation is exhibited during the postictal phase, rarely during the seizure itself

Absence Seizures

- This type of seizure is characterized by a blanking out or a loss of consciousness for ten seconds or less
- This seizure is usually seen only in children
- The individual may be observed staring, eyelid fluttering, or eyes dilated and will not be able to respond to your voice
- The previous activity will be able to be resumed immediately afterwards

Simple Partial Seizures

– This seizure is characterized by only one body function being disturbed

Simple Partial Seizures…

- For example, there could be transient hand twitching or abnormal sensations like numbness or tingling in a specific area of the body
- With simple partial seizures, there are no behavior changes
- Generally no impairment of consciousness

Complex Partial Seizures

- This is the most common type of seizure disorder and the most difficult to control
- Complex partial seizures, as well, are not easily recognizable with its main characteristic being a clouding of consciousness

Complex Partial…

- This type of seizure is somewhat similar to petit mal seizure except that
  - The seizure lasts longer, from 30 seconds to two minutes
  - The range of muscular movements is greater
  - Clouding of consciousness is deeper
  - Clouding of consciousness may continue for a brief period following the attack

Complex Partial…

- A variety of symptoms are possible depending on the area of the brain affected.
- The more common symptoms are
  - Lip smacking
  - Dazed look
  - Picking at clothes
  - Wandering
  - Confused speech
  - Exhibiting odd behavior such as putting an ashtray in the refrigerator

First Aid

- ***Call 911 for any signs of respiratory distress***
- Do remove sharp objects out of the way
- Do loosen any tight clothing and wipe away any saliva around the mouth
- Do turn the individual on his/her side in case there is vomiting

First Aid…

- **Do not** try to hold the individual down or restrain his/her movements in any way
- **Do not** try to give any medicine or any other substance during the seizure
- **Do not** put anything hard in the individual's mouth to prevent biting of lips or tongue

First Aid…

– Re-orient individual when he/she regains consciousness. Tell the individual that he/she has had a seizure and provide reassurance that he/she will be okay. Suggest that the individual lay down and take a nap.

First Aid…

- If the individual is confused and agitated during the postictal phase, do not restrain him/her unless there is danger to the individual or someone else.
  - Restraint usually causes the individual to become more agitated. Have one person talk to the individual in a slow, soft reassuring voice
- ***Call 911*** if the individual does not regain consciousness between seizures or if one seizure lasts more than three minutes.
  - **This is status epilepticus and it is a medical emergency!**
- ***Call 911 for respiratory distress***

Role of The Direct Support Staff

- *Learn the type, characteristic pattern, and any behavioral guidelines to follow for individuals we support. It is then possible to anticipate and more quickly identify future seizures*

Role of The Direct Support Staff

- Accurate observations and recording of seizures on the seizure report form.
- What observations did you make to cause you to believe the individual was having a seizure?
- Try to keep track of the duration. Include what the individual did before the seizure, any "aura", and his/her condition afterwards.

Role of The Direct Support Staff

- If you are not sure whether an individual is having a seizure, try speaking to him/her and ask an open question. If no response, you may also give the individual a special word or sign to remember.
- For example, “Joe, remember the word house”. If the individual is not able to remember this word or sign afterwards, then the chances are greater that it was a seizure.

Role of The Direct Support Staff

- Help an individual with a seizure disorder to maintain a healthy self-concept and as much independence as possible.
- Be a positive role model for others, remaining cool and calm while dealing with the emotional impact of observing a seizure. Keep area clear of extra people so the individual does not wake up to the embarrassment of many people staring at him/her.

Treatment

- The most effective method of controlling seizures is the use of medications called anticonvulsants.
- There are a wide variety of medications available. Some have been proven to be more effective with certain types of seizures than others.

Treatment…

- Each medication also has varying degrees of side effects.
- Our goal is to provide sufficient control of seizure activity with the least possible side effects.

Treatment…

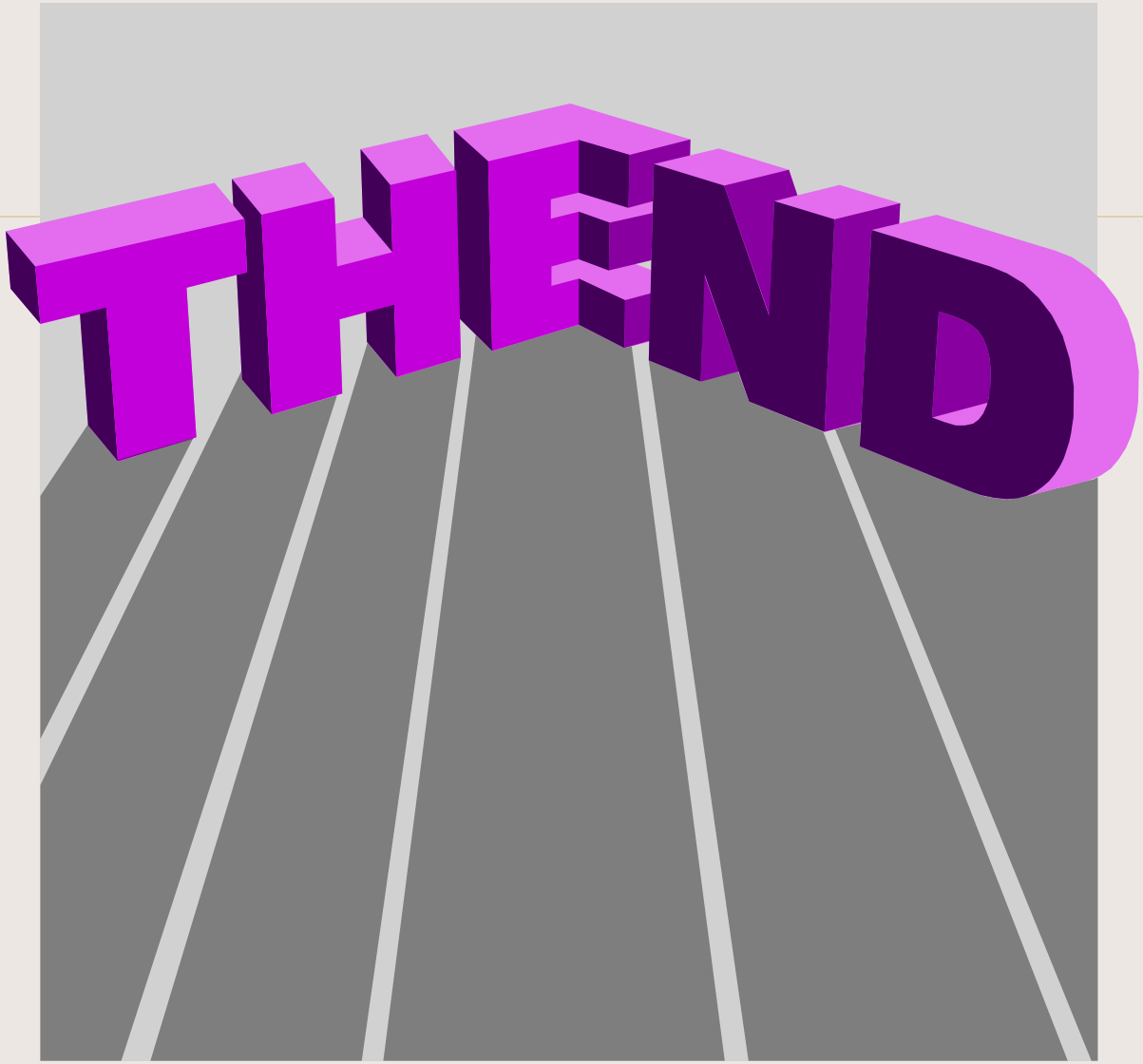
- The decision by the licensed health care provider about the best medication to administer is greatly enhanced by staff correctly identifying the nature of the seizure, as well as accurate reporting of possible side effects.

Documentation

- A few things to remember when documenting any/all of your findings
  - ALWAYS write in blue or black ink – NEVER use pencil!
  - ALWAYS be sure the document is dated accurately
  - Whenever signing a document, make sure you sign in full
  - If you make a mistake in your documentation, make a single line through the error, initial it, and communicate the correction. NEVER use white-out!

Documentation…

- Some of the things you will need to document:
  - Accidents/injuries
  - Medication errors
  - Communication logs
  - Administration of medications and treatments
  - Records of seizures


THE END

Rhode Island Department of Mental Health, Retardation and Hospitals
Division of Developmental Disabilities

MEDICATION ADMINISTRATION FOR DIRECT SUPPORT STAFF

A TRAINING CURRICULUM

TRAINER'S MANUAL

December 31, 2004

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MEDICATION ADMINISTRATION FOR DIRECT SUPPORT STAFF

A TRAINING CURRICULUM

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MEDICATION ADMINISTRATION

FOR

DIRECT SUPPORT STAFF

A TRAINING CURRICULUM

TRAINER'S MANUAL

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MEDICATION ADMINISTRATION

FOR

DIRECT SUPPORT STAFF

INFORMATION

- Medication Administration for Direct Support Staff Training and Management Standards.
- Recommended Time for Completion of Each Unit of Instruction.

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Medication Administration for Direct Support Staff

Training Standards

Standard I

The minimum length of the medication administration training program, including both the classroom and practicum components, shall be twenty (20) hours with at least four (4) hours of practicum instruction.

Standard II

Competent resource personnel within the health care field may participate as instructors for the *Medication Administration for Direct Support Staff* curriculum. Such personnel
may include:

1. Registered Nurses or Licensed Practical Nurses who hold a current Rhode Island license in good standing, and have two (2) or more years of nursing experience; and,

2. Pharmacists who have two (2) or more years of experience in their field.

Standard III

Instructor/student ratios shall be as follows:

1. One instructor for twenty (20) students in the classroom and initial practicum demonstration component of the curriculum.

2. A minimum of one instructor for every ten (10) students during the practice and return demonstration of the practicum component.

Standard IV

Testing is an essential component for assessing and evaluating the student's ability to master the knowledge and skills necessary to safely administer medications. Students participating in this medication administration training will be tested on both theory and skills demonstration.

Competence testing will be conducted at the end of each training unit, as well as a final written examination at the end of the training. Instructors will use uniform tests to evaluate the student's comprehension and learning throughout the training program.

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Requests for accommodations for an alternate testing format, e.g., oral exams instead of written, shall be submitted in writing to the course instructor and shall be considered on a student-by-student basis.

The decision to administer the test in an alternate format shall be made by the instructor in consultation with the administrative and nursing staff of the respective agency, and the Rhode Island Department of Mental Health, Retardation and Hospitals, or the Department's authorized agent for the coordination of this training program.

Standard V

Security measures to protect the use and integrity of the tests will be implemented by the Rhode Island Department of Mental Health, Retardation and Hospitals.

Standard VI

In order to successfully complete the *Medication Administration for Direct Support Staff* training program, the student shall achieve a minimum passing score of 80% based on the written and practicum demonstration components of the coursework.

The student shall be eligible to take the competency examinations three times within a twelve-month period.

The student shall not be permitted to administer medications during the time periods between re-testing.

If the student fails to meet the minimum competency requirements and passing grade after the third test, he/she shall not be permitted to administer medications in the developmental disabilities system.

A Registered Nurse at the student's respective agency shall conduct the final competency assessment and completion of a competency certificate.

Direct Support Staff working in the developmental disabilities system shall not, under any circumstances, administer medications unless they have successfully completed all of the required training and have a competency assessment form signed by a Registered Nurse.

Standard VII

A certificate of completion shall be awarded to each student upon successful completion of the medication administration training. The certificate shall include the student's name, the name of the agency where he/she is employed, the date the student completed the training, the printed name and signature of the instructor, and the date the certificate was awarded.

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Standard VIII

All Direct Support Staff employed by agencies licensed by the Rhode Island Department of Mental Health, Retardation and Hospitals to provide supports to individuals with developmental disabilities shall be required to have a semi-annual medication administration competency assessment completed and documented by a Licensed Nurse within their agency.

Standard IX

The *Medication Administration for Direct Support Staff* training shall be coordinated by the Rhode Island Department of Mental Health, Retardation and Hospitals, or the Department's authorized agent. The coordinating entity shall establish and maintain records for the following:

1. The name of each student enrolled in the training program; the name of the agency employing the student at the time of his/her participation in the training; the student's performance throughout the program, as indicated by competence testing scores; and, the date the student completed the training program. Records shall also be maintained for any student withdrawing from the training program before completing the requirements. Such records shall include the date the student withdrew from the training program and the reason.

2. Each instructor teaching the medication administration curriculum shall provide the coordinating entity with a resume indicating the requisite two (2) years of experience in nursing or pharmacy, and a copy of a current Rhode Island nursing or pharmacist license;

3. Copies of current curriculum and dated notations of any revisions;

4. All test material;

5. All requests for alternate format testing and the disposition of the request; and,

6. A complete and current roster of all students who have successfully completed the training and were awarded a certificate of completion.

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CURRICULUM STANDARDS

CLASSROOM INSTRUCTION:

Learning begins with the presentation of information or theory to allow a student to establish a knowledge base. As students progress with learning, information is retrieved from that knowledge base and applied to practice situations. Classroom instruction is the component for presenting theory on the role of direct support staff administering medication and correlated responsibilities.

Standard I:

Classroom instruction should be integrated into the total training program.

Standard II:

Classroom instruction should have objectives for each unit which reflect the purposes of the training program and gives direction to the instructor and students.

Standard III:

Classroom instruction will include general information relevant to administration of medications. Topics will include:

1) Governmental regulations which include laws governing:
   a) Nursing practice, and
   b) Storing, administering and recording controlled substances.
2) Terminology;
3) Forms of medications;
4) Routes for administering medications;
5) Accepted abbreviations, and
6) Medication administration references.

Standard IV:

Classroom instruction will include an overview of the general structure and function, common pathology and the pharmacologic effect of specific medications on the body systems. Body systems that should be addressed are:

1) Circulatory/cardiovascular;
2) Endocrine;
3) Gastrointestinal;
4) Integumentary;
5) Lymphatic;

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6) Musculoskeletal;
7) Nervous;
8) Reproductive;
9) Respiratory;
10) Sensory (eyes, ears, nose, mouth); and
11) Urinary.

Standard V:

Classroom instruction addresses the major classifications of medications and how each class is related to a body system and its pathology.

1) Instruction will focus on those classifications of medications most commonly administered by direct support staff which may include:
   a) Analgesics;
   b) Antacids;
   c) Antianxiety medications;
   d) Antiarrhythmics;
   e) Antibiotics;
   f) Anticholinergics;
   g) Anticoagulants;
   h) Antidepressants;
   i) Antidiarrheals;
   j) Antiemetics;
   k) Antiepileptics;
   l) Antihistamines;
   m) Antihypertensives;
   n) Anti-inflammatory medications;
   o) Antiparkinsons;
   p) Psychotropic medications
   q) Antipyretics;
   r) Antiseptics;
   s) Antitussives;
   t) Bronchodilators
   u) Cathartics
   v) Cardiotonics;
   w) Diuretics;
   x) Expectorants;
   y) Hormone Replacements;
   z) Muscle relaxants;
   aa) Nasal decongestants;
   bb) Hypoglycemics;
   cc) Sedatives;and
   dd) Vasodilators

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Standard VI

Classroom instruction will focus on the role and scope of practice of direct support staff in administering medications. Specific functions that will be addressed are:

1) Following medication orders;
2) Administering medications by mouth, or directly to the skin, eyes, ears, nose;
3) Following governmental regulations and agency policies for administering medications and controlled substances.

LABORATORY INSTRUCTION

After an initial presentation of theory, learning progresses through opportunities involving application of theory to practice situations. Laboratory instruction is the component for allowing students to apply the knowledge acquired from classroom instruction to the act of administering medications.

Steps for optimal learning include observation of how medications are administered via instructor demonstration, followed by students developing and practicing the basic skills involved in administering medication.

A competency evaluation is essential to assure each individual student has acquired the knowledge and basic skills required to administer medications in a safe and competent manner.

Standard VII

Laboratory instruction will follow classroom instruction to assure an integrated training program.

Standard VIII

Laboratory instruction will have objectives which reflect the theory presented in classroom instruction and the role of a medication aide.

Standard IX

Laboratory instruction will utilize physical facilities that reasonably simulate home environment and the types of medication delivery systems used in the developmental disabilities system.

Instructors will design exercises for skill demonstration that simulates the various types of medication delivery systems used in the home environment.

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Standard X

Laboratory instruction will provide an opportunity for instructors to evaluate each student for the basic skills that are essential for administering medications. A competency evaluation will identify critical items and measure the following basic skills:

1) Uses the six rights at all times when administering medications including recording medications in appropriate records. The six rights are: right individual, right time, right medication, right dose, right route, and right documentation.
2) Complies with governmental regulations when administering medications, including the necessary recording for controlled substances;
3) Is able to administer medications by mouth or directly to the skin, eyes, ear, or nose;
4) Uses accepted abbreviations and symbols when recording;
5) Uses standard medication references;
6) Follows safety precautions;
7) Uses therapeutic communication and interpersonal skills;
8) Respects rights of persons;
9) Reports significant information pertaining to administering medications to the agency nurse or supervisor providing direction; and
10) Administers medications following medication orders.

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MEDICATION ADMINISTRATION FOR UNLICENSED PERSONNEL CURRICULUM

Recommended Time Frames for Instruction

Unit I	1 hour
Unit II	3 hours
Unit III	1 hour
Unit IV	1 hour (allowing time for students to experience hands on with reference books)
Unit V	7 hours
Unit VI, Part 1	2 hours (laboratory instruction – part 1)
Unit VI, Part 2	2 hours (laboratory instruction – part 2)
Unit VI, Part 3	½ hour (laboratory instruction – part 3)
Unit VI, Part 4	2.5 hours (Final exam and Competency Checkoff)
TOTAL HOURS	**20 hours**

Note: Final Competency assessment and sign off will be conducted by the supervising/delegating nurse at the student's respective developmental disabilities provider agency.

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UNIT ONE

PRINCIPLES OF MEDICATION

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UNIT ONE

Principles of Medication Administration

Objectives:

After completing this unit, the student will be able to:

1. Identify the personnel who may administer medication.
2. Explain the medication administration guiding principles.
3. Explain the safety factors necessary for medication administration.

Introduction to the Student

You are about to begin a course of medication administration study that will have a significant impact on the individuals you will be supporting, your colleagues at your agency, and on you as you carry out the responsibilities of your job. This is challenging and exciting work, and it is important to always remember that administering medications must be done with thought, with care, and in accordance with the principles that you will learn in this course.

There is a great deal to learn about medications, their use, and their effects on the individuals who receive them. *Pharmacology* is the science of drugs and their uses and actions within the body. Pharmacology is always changing, therefore the process of education about medications will also be ongoing.

In this course of study, you will learn about your role and limitations, new terms and definitions, how medications affect the human body, and how to safely administer medications.

Please be prepared to study, ask questions, and enjoy your new course.

Legal and Ethical Issues

Taking medications is an important part of health care for most people. Individuals with developmental disabilities who receive services in our system have the right to expect that the medication they are receiving is the same as that prescribed by their Licensed Health Care Provider (e.g., a physician or a nurse practitioner); and, that the staff who are administering the medications are properly trained and competent to perform that function.

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It is the obligation and responsibility of all Direct Support Staff administering medication to know and respect the rights of the individuals receiving services in the developmental disabilities system. These rights include the right to refuse medications/treatments, if competent to do so, and the right to be informed of any medical consequences that may occur from such refusal.

Your instructor in this course, and the nurses at your agency will talk with you about the concept of "competent to refuse treatment", and what this means for the individuals you will be supporting, and for you as a Direct Support Staff person administering medications.

Unfortunately, medications errors occur. They usually happen when ***haste*** and ***habit*** replace ***care*** and ***caution.*** Whatever the cause of the error, there are legal and ethical obligations that must be fulfilled when a medication error occurs. These obligations will be referred to and discussed throughout this coursework, along with your responsibilities and limitations in administering medications.

If you make a medication error, always ensure the individual's safety first and follow your agency's policy for reporting it to the appropriate personnel within the agency and documenting it on a Medication Error/Incident Report form.

Limitation of Authority and Responsibility Of Direct Support Staff

Licensed nurses such as Registered Nurses and Licensed Practical Nurses are given authority under the law to administer medications. A waiver has been granted to the Rhode Island Department of Mental Health, Retardation and Hospitals by the Rhode Island Department of Health to allow trained and competent Direct Support Staff ***in the developmental disabilities system*** to administer certain types of medications.

The waiver language may be found in the Rhode Island Department of Health's *Rules and Regulations for the Licensing of Nurses and Standards for the Approval of Basic Nursing Education Programs (R5-34-NUR/ED).* This waiver applies ***only*** to staff employed by agencies licensed by the Rhode Island Department of Mental Health, Retardation and Hospitals to provide supports to individuals with developmental disabilities. ***As a Direct Support Staff person you do not have the legal right or responsibility to administer medication in any other setting (e.g., a nursing home or hospital).***

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It is very important for all Direct Support Staff to understand the limitation of their authority and responsibility regarding medication administration. ***Never attempt to perform tasks for which you have not been trained.*** If your employer asks you to perform any health care related task for which you have not received training, or which is beyond the scope of your training, you have the responsibility to refuse to comply with the request.

Your role, and the scope of your practice as a Direct Support Staff Person administering medications includes:

- Administering medications by mouth or through a gastrostomy tube (G tube) or jejunostomy tube (J tube); administration of medications directly to the skin, eyes, ears, nose, vagina, or rectum in accordance with safe standards of practice.
- Following the medication orders of a licensed health care provider, and the specific administration instructions as written in the individual's medication administration record.
- Following governmental and agency policies for the administration of all medication, including controlled substances.

A ***controlled substance*** is any substance under a Federal Classification system found to be habit forming and assigned a schedule depending on their potential for abuse. The Drug Enforcement Administration (DEA) within the Department of Justice dictates and regulates caution labels, disposition of controlled drugs and registration of doctors, dentists, veterinarians, and pharmacists. The DEA has categorized controlled substances into Five (5) Schedules; Schedule 1 has the highest potential for abuse, and Schedule 5 has the lowest potential for abuse.

***Note:* There are special requirements for counting, documenting, and administering controlled medications. If you will be administering such medications, the nurse at your agency will provide you with specific training as to your agency's polices and procedures.**

Remember: You Are Responsible for Your Actions!

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Controlled Substance Act of 1970

Regulates the importation, use, sale, manufacture, and distribution of narcotics barbiturates, amphetamines, and other dangerous drugs.

Licensed those who manufacture, sell, prescribe and dispense controlled drugs.

Regulatory Agency
DRUG ENFORCEMENT ADMINISTRATION (DEA)
(Under Department of Justice

Categorizes controlled substances into 5 schedules; Schedule 1- (illegal, illicit, or street drugs) highest potential For abuse, Schedule 5- lowest potential for abuse.

Dictates and Regulates
1-Caution labels
2-Registration of M.D.s, O.D.s, Dentists, Vets, Pharmacists. (Those who prescribe and dispense).

FOOD, DRUG AND COSMETIC ACT

Regulates the importation, use, sale, manufacture and distribution of all non-controlled drugs in the U.S.A.

1. Governs which drugs will be sold with or without a prescription.
2. Approves USP/NF
3. Requires accurate labeling and warnings against unsafe use.

Regulatory Agency
THE FOOD AND DRUG ADMINISTRATION (FDA)
(Under Department of Health & Human Services)

Drug manufacturers must register with the FDA. requires manufacturers to prove the value and safety of new drugs before they are released for sale, either with or without prescription.

Dictates wording of drug Container labeling on both prescription and nonprescription drugs.

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Controlled Substances
Rhode Island General Laws and Formulary
TITLE 21
Food And Drugs
CHAPTER 21-28
Uniform Controlled Substances Act
ARTICLE 21-28-1.01
Short Title and Definitions
SECTION 21-28-1.01

§ 21-28-1.01 Short title and declaration. – (a) This chapter may be cited as the "Rhode Island Controlled Substances Act", and shall be so interpreted and construed as to effectuate its general purpose.

(b) The general purposes of this chapter are as follows:

(1) To establish a more rational system of regulating substances which may pose a danger to the public health;

(2) To create a system for classifying the substances relative to their abuse potential, their medical utility, and their likelihood of creating dependency;

(3) To fix penalties for the sale, possession, or manufacture of substances which are in proportion to their danger to the public health;

(4) To develop a system of tracing the flow of substances in commerce and in health as to prevent their improper diversion;

(5) To establish and define the powers of investigation, enforcement, and adjudication required to implement the above purposes; and to establish a system of substances control which is, to the extent possible, uniform with the laws of the United States and of its states.

§ 21-28-1.02 Definitions. – Unless the context otherwise requires, the words and phrases as defined in this section are used in this chapter in the sense given them in the following definitions:

(1) "Administer" refers to the direct application of controlled substances to the body of a patient or research subject by:

(i) A practitioner, or, in his or her presence by his or her authorized agent; or

(ii) The patient or research subject at the direction and in the presence of the practitioner whether the application is by injection, inhalation, ingestion, or any other means.

(2) "Agent" means an authorized person who acts on behalf of or at the direction of a manufacturer, wholesaler, distributor, or dispenser; except that these terms do not include a common or contract carrier or warehouse operator, when acting in the usual and lawful course of the carrier's or warehouse operator's business.

(3) "Apothecary" means a registered pharmacist as defined by the laws of this state and, where the context requires, the owner of a licensed pharmacy or other place of business where controlled substances are compounded or dispensed by a registered pharmacist; and includes registered assistant pharmacists as defined by existing law, but nothing in this chapter shall be construed as conferring on a person who is not registered as a pharmacist any authority, right, or privilege that is not granted to him or her by the pharmacy laws of the state.

(4) "Automated data processing system" means a system utilizing computer software and hardware for the purposes of record keeping.

(5) "Computer" means programmable electronic device capable of multi-functions, including, but not limited to, storage, retrieval, and processing of information.

(6) "Control" means to add a drug or other substance or immediate precursor to a schedule under this chapter, whether by transfer from another schedule or otherwise.

(7) "Controlled substance" means a drug, substance, or immediate precursor in schedules I – V of this chapter. The term shall not include distilled spirits, wine, or malt beverages, as those terms are defined or used in chapter 1 of title 3, nor tobacco.

(8) "Counterfeit substance" means a controlled substance which, or the container or labeling of which, with-

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out authorization bears the trademark, trade name, or other identifying mark, imprint, number, or device, or any likeness of them, of a manufacturer, distributor, or dispenser, other than the person or persons who in fact manufactured, distributed, or dispensed the substance and which thereby falsely purports or is represented to be the product of, or to have been distributed by, the other manufacturer, distributor, or dispenser, or which substance is falsely purported to be or represented to be one of the controlled substances by a manufacturer, distributor, or dispenser.

(9) "CRT" means cathode ray tube used to impose visual information on a screen.

(10) "Deliver" or "delivery" means the actual, constructive, or attempted transfer of a controlled substance or imitation controlled substance, whether or not there exists an agency relationship.

(11) "Department" means the department of health of this state.

(12) "Depressant or stimulant drug" means:

(i) A drug which contains any quantity of:

(A) Barbituric acid or derivatives, compounds, mixtures, or preparations of barbituric acid; and

(B) "Barbiturate" or "barbiturates" includes all hypnotic and/or somnifacient drugs, whether or not derivatives of barbituric acid, except that this definition shall not include bromides and narcotics.

(ii) A drug which contains any quantity of:

(A) Amphetamine or any of its optical isomers;

(B) Any salt of amphetamine and/or desoxyephedrine or any salt of an optical isomer of amphetamine and/or desoxyephedrine, or any compound, mixture, or preparation of them.

(iii) A drug which contains any quantity of coca leaves. "Coca leaves" includes cocaine, or any compound, manufacture, salt, derivative, mixture, or preparation of coca leaves, except derivatives of coca leaves, which do not contain cocaine, ecgonine, or substance from which cocaine or ecgonine may be synthesized or made.

(iv) Any other drug or substance which contains any quantity of a substance which the attorney general of the United States, or the director of health, after investigation, has found to have, or by regulation designates as having, a potential for abuse because of its depressant or stimulant effect on the central nervous system.

(13) "Director" means the director of health.

(14) "Dispense" means to deliver, distribute, leave with, give away, or dispose of a controlled substance to the ultimate user or human research subject by or pursuant to the lawful order of a practitioner, including the packaging, labeling, or compounding necessary to prepare the substance for that delivery.

(15) "Dispenser" is a practitioner who delivers a controlled substance to the ultimate user or human research subject.

(16) "Distribute" means to deliver (other than by administering or dispensing) a controlled substance or an imitation controlled substance and includes actual constructive, or attempted transfer. "Distributor" means a person who so delivers a controlled substance or an imitation controlled substance.

(17) "Downtime" means that period of time when a computer is not operable.

(18) "Drug dependent person" means a person who is using a controlled substance and who is in the state of psychic or physical dependence, or both, arising from the use of that controlled substance on a continuous basis. Drug dependence is characterized by behavioral and other responses, which include, but shall not be limited to, compulsion to take the substance on a continuous basis in order to experience its psychic or physical effect, or to avoid the discomfort of its absence.

(19) "Drug Enforcement Administration" means the Drug Enforcement Administration United States Department of Justice or its successor.

(20) "Federal law" means the Comprehensive Drug Abuse Prevention and Control Act of 1970, (84 stat. 1236)(see generally 21 U.S.C. § 801 et seq.), and all regulations pertaining to that federal act.

(21) "Hardware" means the fixed component parts of a computer.

(22) "Hospital" means an institution as defined in chapter 17 of title 23.

(23) "Imitation controlled substance" means a substance that is not a controlled substance, which by dosage unit, appearance (including color, shape, size, and markings), or by representations made, would lead a reasonable person to believe that the substance is a controlled substance and, which imitation controlled substances contain substances which if ingested, could be injurious to the health of a person. In those cases when the appearance of the dosage unit is not reasonably sufficient to establish that the substance is an "imitation controlled substance" (for example in the case of powder or liquid), the court or authority concerned should consider, in addition to all other logically relevant factors, the following factors as related to "representations made" in determining whether the substance is an "imitation controlled substance":

(i) Statement made by an owner, possessor, transferor, recipient, or by anyone else in control of the sub-

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stance concerning the nature of the substance, or its use or effect.

(ii) Statements made by the owner, possessor, or transferor, to the recipient that the substance may be resold for substantial profit.

(iii) Whether the substance is packaged in a manner reasonably similar to packaging of illicit controlled substances.

(iv) Whether the distribution or attempted distribution included an exchange of or demand for money or other property as consideration, and whether the amount of the consideration was substantially greater than the reasonable value of the non-controlled substance.

(24) "Immediate precursor" means a substance:

(i) Which the director of health has found to be and by regulation designated as being the principal compound used, or produced primarily for use, in the manufacture of a controlled substance;

(ii) Which is an immediate chemical intermediary used or likely to be used in the manufacture of those controlled substances; and

(iii) The control of which is necessary to prevent, curtail, or limit the manufacture of that controlled substance.

(25) "Laboratory" means a laboratory approved by the department of health as proper to be entrusted with controlled substances and the use of controlled substances for scientific and medical purposes and for the purposes of instruction.

(26) "Marijuana" means all parts of the plant cannabis sativa L., whether growing or not; the seeds of the plant; the resin extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds or resin, but shall not include the mature stalks of the plant, fiber produced from the stalks, oil or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of mature stalks, (except the resin extracted from it), fiber, oil or cake, or the sterilized seed from the plant which is incapable of germination.

(27) "Manufacture" means the production, preparation, propagation, cultivation, compounding, or processing of a drug or other substance, including an imitation controlled substance, either directly or indirectly or by extraction from substances of natural origin, or independently by means of chemical synthesis or by a combination of extraction and chemical synthesis and includes any packaging or repackaging of the substance or labeling or relabeling of its container in conformity with the general laws of this state except by a practitioner as an incident to his or her administration or dispensing of the drug or substance in the course of his or her professional practice.

(28) "Manufacturer" means a person who manufactures but does not include an apothecary who compounds controlled substances to be sold or dispensed on prescriptions.

(29) "Narcotic drug" means any of the following, whether produced directly or indirectly by extraction from substances of vegetable origin, or independently by means of chemical synthesis or by a combination of extraction and chemical synthesis:

(i) Opium and opiates.

(ii) A compound, manufacture, salt, derivative, or preparation of opium or opiates.

(iii) A substance (and any compound, manufacture, salt, derivative, or preparation of it) which is chemically identical with any of the substances referred to in paragraphs (i) and (ii) of this subdivision.

(iv) Any other substance which the attorney general of the United States, or his or her successor, or the director of health, after investigation, has found to have, and by regulation designates as having, a potential for abuse similar to opium and opiates.

(30) "Official written order" means an order written on a form provided for that purpose by the Drug Enforcement Administration under any laws of the United States making provision for an official form, if order forms are authorized and required by federal law, and if no order form is provided then on an official form provided for that purpose by the director of health.

(31) "Opiate" means any substance having an addiction-forming or addiction-sustaining liability similar to morphine or being capable of conversion into a drug having addiction-forming or addiction-sustaining liability.

(32) "Opium poppy" means the plant of the species papaver somniferum L., except the seeds of the plant.

(33) "Ounce" means an avoirdupois ounce as applied to solids and semi-solids, and a fluid ounce as applied to liquids.

(34) "Person" means any corporation, association, partnership, or one or more individuals.

(35) "Poppy straw" means all parts, except the seeds, of the opium poppy, after mowing.

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(36) "Practitioner" means:
(i) A physician, osteopath, dentist, chiropodist, veterinarian, scientific investigator, or other person licensed, registered or permitted to distribute, dispense, conduct research with respect to or to administer a controlled substance in the course of professional practice or research in this state.
(ii) A pharmacy, hospital, or other institution licensed, registered or permitted to distribute, dispense, conduct research with respect to, or to administer a controlled substance in the course of professional practice or research in this state.
(37) "Printout" means a hard copy produced by computer that is readable without the aid of any special device.
(38) "Production" includes the manufacture, planting, cultivation, growing, or harvesting of a controlled substance.
(39) "Researcher" means a person authorized by the director of health to conduct a laboratory as defined in this chapter.
(40) "Sell" includes sale, barter, gift, transfer, or delivery in any manner to another, or to offer or agree to do the same.
(41) "Software" means programs, procedures and storage of required information data.
(42) "Ultimate user" means a person who lawfully possesses a controlled substance for his or her own use or for the use of a member of his or her household, or for administering to an animal owned by him or her or by a member of his or her household.
(43) "Wholesaler" means a person who sells, vends, or distributes at wholesale, or as a jobber, broker agent, or distributor, or for resale in any manner in this state any controlled substance.

TITLE 21
Food And Drugs
CHAPTER 21-28
Uniform Controlled Substances Act
ARTICLE 21-28-2.01
Standards and Schedules
SECTION 21-28-2.08

§ 21-28-2.08 Contents of schedules. – Schedule I
(a) **Schedule I shall consist of the drugs and other substances, by whatever official name, common or usual name, chemical name, or brand name designated, listed in this section**.
(b) Opiates. Unless specifically excepted or unless listed in another schedule, any of the following opiates, including its isomers, esters, ethers, salts, and salts of isomers, esters, and ethers whenever the existence of the isomers, esters, ethers, and salts is possible within the specific chemical designation:
(1) Acetylmethadol
(2) Allylprodine
(3) Alphacetylmethadol
(4) Alphameprodine
(5) Alphamethadol
(6) Benzethidine
(7) Betacetylmethadol
(8) Betameprodine
(9) Betamethadol
(10) Betaprodine
(11) Clonitazene
(12) Dextromoramide
(13) Difenoxin
(14) Diampromide

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(15) Diethylthiambutene
(16) Dimenoxadol
(17) Dimepheptanol
(18) Dimethylthiambutene
(19) Dioxaphetyl butyrate
(20) Dipipanone
(21) Ethylmethylthiambutene
(22) Etonitazene
(23) Extoxerdine
(24) Furethidine
(25) Hydroxypethidine
(26) Ketobemidone
(27) Levomoramide
(28) Levophenacylmorphan
(29) Morpheridine
(30) Noracymethadol
(31) Norlevorphanol
(32) Normethadone
(33) Norpipanone
(34) Phenadoxone
(35) Phenampromide
(36) Phenomorphan
(37) Phenoperidine
(38) Piritramide
(39) Proheptazine
(40) Properidine
(41) Propiram
(42) Racemoramide
(43) Trimeperidone
(44) Tilidine
(45) Alpha-methylfentanyl
(46) Beta-hydroxy-3-methylfentanyl other names:
N-[1-(2hydroxy-2-phenethyl)-3-methyl-4piperidingyl]- Nphenylpropanamide

(c) Opium Derivatives. Unless specifically excepted or unless listed in another schedule, any of the following opium derivatives, its salts, isomers, and salts of isomers whenever the existence of the salts, isomers, and salts of isomers is possible within the specific chemical designation:

(1) Acetorphine
(2) Acetyldihydrocodeine
(3) Benzylmorphine
(4) Codeine methylbromide
(5) Codeine-N-Oxide
(6) Cyprenorphine
(7) Desomorphine
(8) Dihydromorphine
(9) Etorphine (Except hydrochloride salt)
(10) Heroin
(11) Hydromorphinol
(12) Methyldesorphine
(13) Methylihydromorphine
(14) Morphine methylbromide
(15) Morphine methylsulfonate
(16) Morphine-N-Oxide
(17) Myrophine
(18) Nococodeine
(19) Nicomorphine

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(20) Normorphine
(21) Pholcodine
(22) Thebacon
(23) Drotebanol

(d) Hallucinogenic Substances. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation, which contains any quantity of the following hallucinogenic substances, or which contains any of its salts, isomers, and salts of isomers whenever the existence of the salts, isomers, and salts of isomers is possible within the specific chemical designation (for purposes of this subsection only, the term "isomer" includes the optical, position, and geometric isomers):

(1) 3, 4-methylenedioxy amphetamine
(2) 5-methoxy-3, 4-methylenedioxy amphetamine
(3) 3, 4, 5-trimethoxy amphetamine
(4) Bufotenine
(5) Diethyltryptamine
(6) Dimethyltryptamine
(7) 4-methyl 2, 5-dimethoxyamphetamine
(8) Ibogaine
(9) Lysergic acid diethylamide
(10) Marihuana
(11) Mescaline
(12) Peyote. Meaning all parts of the plant presently classified botanically as Lophophora Williamsii Lemair whether growing or not; the seeds of the plant; any extract from any part of the plant; and any compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds or extracts.
(13) N-ethyl-3-piperidyl benzilate
(14) N-methyl-3-piperidyl benzilate
(15) Psilocybin
(16) Psilocyn
(17) Tetrahydrocannabinols. Synthetic equivalents of the substances contained in the plant, or in the resinous extractives of Cannabis, sp. and/or synthetic substances, derivatives, and their isomers with similar chemical structure and pharmacological activity such as the following: delta 1 cis or trans tetrahydrocannabinol, and their optical isomers. Delta 6 cis or trans tetrahydrocannabinol and their optical isomers. Delta 3, 4 cis or trans tetrahydrocannabinol and its optical isomer. (Since nomenclature of these substances is not internationally standardized, compounds of these structures, regardless of numerical designation of atomic positions covered).
(18) Thiophene analog of phencyclidine. 1-(1-(2 thienyl) cyclo-hexyl) pipiridine: 2-Thienyl analog of phencyclidine: TPCP
(19) 2,5 dimethoxyamphetamine
(20) 4-bromo-2,5-dimethoxyamphetamine, 4-bromo-2,5-dimethoxy-alpha-methylphenethyamine: 4-bromo-2,5-DMA
(21) 4-methoxyamphetamine-4-methoxy-alpha-methylphenethylaimine: paramethoxyamphetamine: PMA
(22) Ethylamine analog of phencyclidine. N-ethyl-1- phenylcyclohexylamine, (1-phenylcyclohexyl) ethylamine, N-(1-phenylcyclophexyl) ethylamine, cyclohexamine, PCE
(23) Pyrrolidine analog of phencyclidine. 1-(1-phencyclohexyl)- pyrrolidine PCPy, PHP
(24) Parahexyl; some trade or other names: 3-Hexyl-1-hydroxy-7,8,9,10-tetrahydro-6,6,9-trimethyl-6H-dibenz o (b,d) pyran: Synhexyl.

(e) Depressants. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a depressant effect on the central nervous system, including its salts, isomers, and salts of isomers whenever the existence of the salts, isomers, and salts of isomers is possible within the specific chemical designation:

(1) Mecloqualone.
(2) Methaqualone.
(3) 3-methyl fentanyl (n-(3methyl-1(2-phenylethyl)-4-piperidyl)-N-phenylpropanamide.
(4) 3,4-methyl-enedioxymethamphetamine (MDMA), its optical, positional and geometric isomers, salts, and salts of isomers.
(5) 1-methyl-4-phenyl-4-propionoxypiperidine (MPPP), its optical isomers, salts and salts of isomers.
(6) 1-(2-phenylethyl)-4-phenyl-4-acetyloxypiperidine (PEPAP), its optical isomers, salts and salts of iso-

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mers.
(7) N-(1-(1-methyl-2-phenyl)ethyl-4-piperidyl)-N-phenyl-acetamide (acetyl-alpha-methylfentanyl), its optical isomers, salts and salts of isomers.
(8) N-(1-(1-methyl-2(2-thienyl)ethyl-4-piperidyl)-N-phenylpropanami de (alpha-methylthiofentanyl), its optical isomers, salts and salts of isomers.
(9) N-(1-benzyl-piperidyl)-N-phenylpropanamide (benzyl-fentanyl), its optical isomers, salts and salts of isomers.
(10) N-(1-(2-hydroxy-2-phenyl)ethyl-4-piperidyl)-N-phenyl-propanamid e (beta-hydroxyfentanyl), its optical isomers, salts and salts of isomers.
(11) N-(3-methyl-1(2-hydroxy-2-phenyl)ethyl-4-piperidyl)-N-phenylpro panamide (beta-hydroxy-3-methylfentanyl), its optical and geometric isomers, salts and salts of isomers.
(12) N-(3-methyl)-1-(2-(2-thienyl)ethyl-4-piperidyl)-N-phenylpro- panamide (3-methylthiofentanyl), its optical and geometric isomers, salts and salts of isomers.
(13) N-(1-2-thienyl)methyl-4-piperidyl)-N-phenylpropanamide (thenylfentanyl), its optical isomers, salts and salts of isomers.
(14) N-(1-(2(2-thienyl)ethyl-4-piperidyl-N-phenylpropanamide (thiofentanyl), its optical isomers, salts and salts of isomers.
(15) N-[1-(2-phenylethyl)-4-piperidyl]-N-(4-fluorophenyl)-propanamid e (para-fluorofentanyl), its optical isomers, salts and salts of isomers.
(16) Gamma hydroxybutyrate, HOOC-CH2-CH2-CH2OH, its optical, position, or geometric isomers, salts and salts of isomers.
(f) Stimulants. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a stimulant effect on the central nervous system, including its salts, isomers, and salts of isomers:
(1) Fenethylline
(2) N-ethylamphetamine
(a) **Schedule II shall consist of the drugs and other substances, by whatever official name, common or usual name, chemical name, or brand name designated, listed in this section**.
(b) Substances, vegetable origin or chemical synthesis. Unless specifically excepted or unless listed in another schedule, any of the following substances whether produced directly or indirectly by extraction from substances of vegetable origin, or independently by means of chemical synthesis, or by a combination of extraction and chemical synthesis:
(1) Opium and opiate, and any salt, compound, derivative, or preparation of opium or opiate excluding naloxone and its salts, and excluding naltrexone and its salts, but including the following:
(i) Raw opium
(ii) Opium extracts
(iii) Opium fluid extracts
(iv) Powdered opium
(v) Granulated opium
(vi) Tincture of opium
(vii) Etorphine hydrochloride
(viii) Codeine
(ix) Ethylmorphine
(x) Hydrocodone
(xi) Hydromorphone
(xii) Metopon
(xiii) Morphine
(xiv) Oxycodone
(xv) Oxymorphone
(xvi) Thebaine
(2) Any salt, compound, derivative, or preparation which is chemically equivalent or identical with any of the substances referred to in subdivision (1) of this subsection, except that these substances shall not include the isoquinoline alkaloids of opium.
(3) Opium poppy and poppy straw.
(4) Coca leaves and any salt, compound, derivative, or preparation of coca leaves, and any salt, compound,

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derivative, or preparation which is chemically equivalent or identical with any of these substances, except that the substances shall not include decocainized coca leaves or extraction of coca leaves, which extractions do not contain cocaine or ecgonine.

(5) Concentrate of poppy straw (the crude extract of poppy straw in liquid, solid, or powder form which contains the phenanthrine alkaloids of the opium poppy).

(c) Opiates. Unless specifically excepted or unless listed in another schedule any of the following opiates, including its isomers, esters, ethers, salts; and salts of isomers, esters and, ethers whenever the existence of the isomers, esters, ethers, and salts is possible within the specific chemical designation:

(1) Alphaprodine
(2) Anileridine
(3) Bezitramide
(4) Dihydrocodeine
(5) Diphenoxylate
(6) Fentanyl
(7) Isomethadone
(8) Levomethorphan
(9) Levorphanol
(10) Metazocine
(11) Methadone
(12) Methadone-Intermediate, 4-cyano-2-dimethylamino-4, 4-diphenyl butane
(13) Moramide-Intermediate, 2-methyl-3-morpholino-1, 1-diphenylpropane-carboxylic acid
(14) Pethidine
(15) Pethidine-Intermediate-A, 4-cyano-1-methyl-4-phenylpiperidine
(16) Pethidine-Intermediate-B, ethyl-4-phenylpiperidine-4-carboxylate
(17) Pethidine-Intermediate-C, 1-methyl-4-phenylpiperidine-4-carboxylic acid
(18) Phenaxocine
(19) Piminodine
(20) Racemethorphan
(21) Racemorphan
(22) Bulk Dextropropoxyphene (non-dosage forms)
(23) Suffentanil
(24) Alfentanil
(25) Levoalphacetylmethadol

(d) Stimulants. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a stimulant effect on the central nervous system:

(1) Amphetamine, its salts, optical isomers, and salts of its optical isomers.
(2) Methamphetamine, its salts and salts of its isomers.
(3) Phenmetrazine and its salts.
(4) Methylphenidate.

(e) Depressants. Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a depressant effect on the central nervous system, including its salts, isomers, and salts of isomers whenever the existence of the salts, isomers, and salts of isomers is possible within the specific chemical designation:

(1) Amobarbital
(2) Glutethimide
(3) Methyprylon
(4) Pentobarbital
(5) Phencyclidine
(6) Secobarbital
(7) Phencyclidine immediate precursors:
(i) 1-phencyclohexylamine
(ii) 1-piperidinocyclohexane-carbonitrile (PCC)
(8) Immediate precursor to amphetamine and methamphetamine: Phenylacetone. Some other names: phenyl-2-propanone; P2P; benzyl methyl ketone; methyl benzone ketone.

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(a) Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a depressant effect on the central nervous system:

(1) Any substance which contains any quantity of a derivative of barbituric acid, or any salt of a derivative of barbituric acid.

(2) Chlorhexadol

(3) Lysergic acid

(4) Lysergic acid amide

(5) Sulfondiethylmethane

(6) Sulfonethylmethane

(7) Sylfonmethane

(8) Any compound, mixture, or preparation containing amobarbital, secobarbital, pentobarbital, or any salt of them and one or more other active medicinal ingredients which are not listed in any schedule.

(9) Any suppository dosage form containing amobarbital, secobarbital, pentobarbital or any salt of any of these drugs and approved by the Food and Drug Administration for marketing only as a suppository.

(10) Ketamine, its salts, isomers and salts of isomers. (Some other names for ketamine: (+)-2-(2-chlorophenyl)-2-(methylamino)-cyclohexanone).

(b) Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation containing limited quantities of any of the following narcotic drugs, or any salts of them:

(1) Not more than one and eight tenths grams (1.8 gms.) of codeine per one hundred milliliters (100 mls.) or not more than ninety milligrams (90 mgs.) per dosage unit, with an equal or greater quantity of an isoquinoline alkaloid of opium.

(2) Not more than one and eight tenths grams (1.8 gms.) of codeine per one hundred milliliters (100 mls.) or not more than ninety milligrams (90 mgs.) per dosage unit, with one or more active, nonnarcotic ingredients in recognized therapeutic amounts.

(3) Not more than three hundred milligrams (300 mgs.) of dihydrocodeinone per one hundred milliliters (100 mls.) or not more than fifteen milligrams (15 mgs.) per dosage unit, with a fourfold or greater quantity of an isoquinoline alkaloid of opium.

(4) Not more than three hundred milligrams (300 mgs.) of dihydrocodeinone per one hundred milliliters (100 mls.) or not more than fifteen milligrams (15 mgs.) per dosage unit, with one or more active nonnarcotic ingredients in recognized therapeutic amounts.

(5) Not more than one and eight tenths grams (1.8 gms.) of dihydrocodeine per one hundred milliliters (100 mls.) or not more than ninety milligrams (90 mgs.) per dosage unit, with one or more active nonnarcotic ingredients in recognized therapeutic amounts.

(6) Not more than three hundred milligrams (300 mgs.) of ethylmorphine per one hundred milliliters (100 mls.) or not more than fifteen milligrams (15 mgs.) per dosage unit, with one or more active nonnarcotic ingredients in recognized therapeutic amounts.

(7) Not more than five hundred milligrams (500 mgs.) of opium per one hundred milliliters (100 mls.) or per one hundred grams (100 gms.) or not more than twenty-five milligrams (25 mgs.) per dosage unit, with one or more active nonnarcotic ingredients in recognized therapeutic amounts.

(8) Not more than fifty milligrams (50 mgs.) of morphine per one hundred milliliters (100 mls.) per one hundred grams (100 gms.) with one or more active, nonnarcotic ingredients in recognized therapeutic amounts.

(c) Stimulants. Unless specifically excepted or listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a stimulant effect on the central nervous system, including its salts, isomers, and salts of the isomers whenever the existence of the salts of isomers is possible within the specific chemical designation:

(1) Benzphetamine

(2) Chlorphentermine

(3) Clortermine

(4) Mazindol

(5) Phendimetrazine

(d) Steroids and hormones. Anabolic steroids (AS) or human growth hormone (HGH), excluding those compounds, mixtures, or preparations containing an anabolic steroid that because of its concentration, preparation, mixture or delivery system, has no significant potential for abuse, as published in 21 CFR 1308.34, including, but not limited to, the following:

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(1) Chorionic gonadotropin
(2) Clostebol
(3) Dehydrochlormethyltestosterone
(4) Ethylestrenol
(5) Fluoxymesterone
(6) Mesterolone
(7) Metenolone
(8) Methandienone
(9) Methandrostenolone
(10) Methyltestosterone
(11) Nandrolone decanoate
(12) Nandrolone phenpropionate
(13) Norethandrolone
(14) Oxandrolone
(15) Oxymesterone
(16) Oxymetholone
(17) Stanozolol
(18) Testosterone propionate
(19) Testosterone-like related compounds
(20) Human Growth Hormone (HGH)
(1) Dronabinol (synthetic) in sesame oil and encapsulated in a soft gelatin capsule in U.S. Food and Drug Administration approved drug product. (Some other names for dronabinol: (6aR-trans)-6a, 7, 8, 10a- tetrahydro-6, 6, 9- trimethyl-3-pentyl-6H- dibenzo[b,d]pyra n-1-ol,or(-)-delta-9(trans)-tetrahydrocannabinol.)
(1) Barbital.
(2) Chloral betaine
(3) Chloral hydrate
(4) Ethchrovynol
(5) Ethinamate
(6) Methohexital
(7) Meprobamate
(8) Methylphenobarbital
(9) Paraldehyde
(10) Petrichloral
(11) Phenobarbital
(12) Fenfluramine
(13) Diethylpropion
(14) Phentermine
(15) Pemoline (including organometallic complexes and chelates thereof).
(16) Chlordiazepoxide
(17) Clonazepam
(18) Clorazepate
(19) Diazepam
(20) Flurazepam
(21) Mebutamate
(22) Oxazepam
(23) Unless specifically excepted or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances, including its salts:
Dextropropoxyphene(alpha-(+)-4-dimethylamino-1,2-diphenyl-3- methyl-2-propronoxybutane).
(24) Prazepam
(25) Lorazepam
(26) Not more than one milligram (1 mg.) of difenoxin and not less than twenty-five (25) micrograms of atropine sulfate per dosage unit.
(27) Pentazocine
(28) Pipradrol
(29) SPA (-)-1-dimethylamino-1, 2-diphenylethane

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(30) Temazepam
(31) Halazepam
(32) Alprazolam
(33) Bromazepam
(34) Camazepam
(35) Clobazam
(36) Clotiazepam
(37) Cloxazolam
(38) Delorazepam
(39) Estazolam
(40) Ethyl Ioflazepate
(41) Fludizaepam
(42) Flunitrazepam
(43) Haloxazolam
(44) Ketazolam
(45) Loprazolam
(46) Lormetazepam
(47) Medazepam
(48) Nimetazepam
(49) Nitrazepam
(50) Nordiazepam
(51) Oxazolam
(52) Pinazepam
(53) Tetrazepam
(54) Mazindol
(55) Triazolam
(56) Midazolam
(57) Quazepam
(58) Butorphanol
(59) Sibutramine

(a) Any compound, mixture, or preparation containing any of the following limited quantities of narcotic drugs, which shall include one or more non-narcotic active medicinal ingredients in sufficient proportion to confer upon the compound, mixture, or preparation valuable medicinal qualities other than those possessed by the narcotic drug alone:

(1) Not more than two hundred milligrams (200 mgs.) of codeine per 100 milliliters (100 mls.) or per one hundred grams (100 gms.).

(2) Not more than one hundred milligrams (100 mgs.) of dihydrocodeine per 100 milliliters (100 mls.) or per one hundred grams (100 gms.).

(3) Not more than one hundred milligrams (100 mgs.) of ethylmorphine per 100 milliliters (100 mls.) or per one hundred grams (100 gms.).

(4) Not more than two and five tenths milligrams (2.5 mgs.) of diphenixylate and not less than twenty-five (25) micrograms of atropine sulfate per dosage unit.

(5) Not more than one hundred milligrams (100 mgs.) of opium per one hundred milliliters (100 mls.) or per one hundred grams (100 gms.).

(b) Not more than five tenths milligrams (0.5 mgs.) of difenoxin and not less than twenty-five (25) micrograms of atropine sulfate per dosage unit.

(c) Buprenorphine

(d) Unless specifically exempted or excluded or unless listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of the following substances having a stimulant effect on the central nervous system, including its salts, isomers and salts of isomers:

(1) Propylhexedrine (except as benzedrex inhaler)

(2) Pyrovalerone.

TITLE 21
Food And Drugs

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CHAPTER 21-28
Uniform Controlled Substances Act
ARTICLE 21-28-5.01
Powers of Enforcement Personnel
SECTION 21-28-5.07

§ 21-28-5.07 **Disposition of controlled substances. –** (a) Any person lawfully in possession of excess or undesired controlled substances shall dispose of the controlled substances in a manner established in regulation by the director which shall include, but not be limited to, requirements that the person shall keep a full and complete record of all controlled substances received and of all controlled substances disposed of, showing: (1) the exact kinds, quantities, and forms of the controlled substances; (2) the persons from whom received and to whom delivered; (3) by whose authority received, delivered, and destroyed; and (4) the date of the receipt, disposal or destruction, which record shall be open to inspection by all federal or state officers, including the director of health and the director's delegated personnel, charged with the enforcement of federal law or of this chapter.

(b) Controlled substances and imitation controlled substances seized by or in the possession of the Rhode Island state police shall be distributed or destroyed as provided by regulation. The superintendent of state police shall keep a full and complete record of all controlled substances received and of all controlled substances disposed of, showing: (1) the exact kinds, quantities, and forms of the controlled substances; (2) the persons from whom received and to whom delivered; (3) by whose authority received, delivered, and destroyed; and (4) the dates of the receipt, disposal, or destruction, which record shall be open to inspection by all federal or state officers charged with the enforcement of federal law or of this chapter.

(c) Controlled substances and imitation controlled substances seized by or in the possession of any municipal or state law enforcement agency other than the Rhode Island state police shall be distributed or destroyed as provided by regulation. The chief law enforcement official of each agency shall keep a full and complete record of all controlled substances received and of all controlled substances disposed of, showing: (1) the exact kinds, quantities, and forms of the controlled substances; (2) the persons from whom received and to whom delivered; (3) by whose authority received, delivered, and destroyed; and (4) the dates of the receipt, disposal, or destruction, which record shall be open to inspection by all federal or state officers charged with the enforcement of federal law or of this chapter.

(d) The director of health or his or her designee is authorized: (1) to enter any premises where controlled substances are brought for disposal pursuant to this section; (2) to inspect any and all aspects of the disposal process and related records; and (3) to obtain and test samples of any and all controlled substances being processed for disposal for the purpose of determining compliance with state and federal law.

TITLE 21
Food And Drugs
CHAPTER 21-31
Rhode Island Food, Drugs, and Cosmetics Act
SECTION 21-31-15

§ 21-31-15 Misbranded drug or device. – (a) A drug or device shall be deemed to be misbranded:

(1) If its labeling is false or misleading in any way.

(2) If in package form unless it bears a label containing: (i) the name and place of business of the manufacturer, packer, or distributor; and (ii) an accurate statement of the quantity of the contents in terms of weight, measure, or numerical count; provided, that under paragraph (ii) of this subdivision reasonable variations shall be permitted, and exemptions as to small packages shall be established, by regulations prescribed by the director of health.

(3) If any word, statement, or other information required by or under authority of this chapter to appear on the label or labeling is not prominently placed on it with such conspicuousness (as compared with other words, statements, designs, or devices in the labeling) and in such terms as to render it likely to be read and understood by the ordinary individual under customary conditions of purchase and use.

(4) If it is for use by humans and contains any quantity of the narcotic or hypnotic substance alpha-eucaine, barbituric acid, betaeucaine, bromal, cannabis, carbromal, chloral, coca, cocaine, codeine, heroin, marihuana,

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morphine, opium, paraldehyde, peyote, or sulphonmethane, or any chemical derivative of any of those substances, which derivative has been by the director of health after investigation found to be, and by regulations under this chapter designated as, habit forming, unless its label bears the name and quantity of the proportion of the substance or derivative and in juxtaposition with it the statement "Warning – May be habit forming."

(5) If it is a drug and is not designated solely by a name recognized in an official compendium unless its label bears: (i) the common or usual name of the drug, if there is one; and (ii) in case it is fabricated from two (2) or more ingredients, the common or usual name of each active ingredient, including the kind and quantity or proportion of any alcohol, and also including, whether active or not, the name and quantity or proportion of any bromides, ether, chloroform, acetanilid, acetphenetidin, amidopyrine, anti-pyrine, atropine, hysoeine, hyoscyamine, arsenic, digitalis, glucosides, mercury, ouabain, strophanthin, strychnine, thyroid, or any derivative or preparation of those substances contained in it; provided, that to the extent that compliance with the requirements of paragraph (ii) of this subdivision is impracticable, exemptions shall be established by regulations promulgated by the director of health.

(6) Unless its labeling bears: (i) adequate directions for use; and (ii) adequate warnings against use in those pathological conditions or by children where its use may be dangerous to health, or against unsafe dosage or methods or duration of administration or application, in the manner and form that are necessary for the protection of users; provided, that where any requirement of paragraph (i) of this subdivision, as applied to any drug or device, is not necessary for the protection of the public health, the director of health shall promulgate regulations exempting the drug or device from those requirements.

(7) If it purports to be a drug the name of which is recognized in an official compendium, unless it is packaged and labeled as prescribed in the compendium; provided, that the method of packing may be modified with the consent of the director of health. Whenever a drug is recognized in both the United States Pharmacopoeia and the Homeopathic Pharmacopoeia of the United States, it shall be subject to the requirements of the United States Pharmacopoeia with respect to packaging and labeling unless it is labeled and offered for sale as a homeopathic drug, in which case it shall be subject to the provisions of the Homeopathic Pharmacopoeia of the United States, and not to those of the United States Pharmacopoeia.

(8) If it has been found by the director of health to be a drug liable to deterioration, unless it is packaged in the form and manner, and its label bears a statement of the precautions, that the director of health shall by regulations require as necessary for the protection of public health. No regulation shall be established for any drug recognized in an official compendium until the director of health shall have informed the appropriate body charged with the revision of the compendium of the need for packaging or labeling requirements and that body shall have failed within a reasonable time to prescribe those requirements.

(9) If: (i) it is a drug and its container is made, formed, or filled as to be misleading; (ii) it is an imitation of another drug; or (iii) it is offered for sale under the name of another drug.

(10) If it is dangerous to health when used in the dosage, or with the frequency or duration prescribed, recommended, or suggested in its labeling.

(11) A drug intended for use by humans which: (A) is a habit forming drug to which subdivision (a)(4) of this section applies; (B) because of its toxicity or the potential for harmful effect, or the method of its use, or the collateral measures necessary to its use, is not safe for use except under the supervision of a practitioner licensed by law to administer that drug; or (C) is limited by an effective application under § 21-31-16 to use under the professional supervision of a practitioner licensed by law to administer that drug shall be dispensed only: (I) upon a written prescription of a practitioner licensed by law to administer the drug, (II) upon an oral prescription of the practitioner which is reduced promptly to writing and filed by the pharmacist, or (III) by refilling any written or oral prescription if the refilling is authorized by the prescriber either in the original prescription or by oral order which is reduced promptly to writing and filed by the pharmacist. The act of dispensing a drug contrary to the provisions of this subdivision shall be deemed to be an act that results in the drug being misbranded while held for sale.

(ii) The director of health may by regulation remove drugs subject to subdivision (a)(4) of this section and § 21-31-16 from the requirements of paragraph (i) of this subdivision when those requirements are not necessary for the protection of the public health.

(iii) A drug which is subject to paragraph (i) of this subdivision shall be deemed to be misbranded if at any time prior to dispensing its label fails to bear the statement "Caution: Federal law prohibits dispensing without prescription." A drug to which paragraph (i) of this subdivision does not apply shall be deemed to be misbranded if at any time prior to dispensing its label bears the caution statement quoted in the preceding sentence.

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(iv) No prescription for any of the drugs described in this subdivision shall be refilled if marked "non-repeat" or "N.R."

(12) If it is a drug and its packaging or labeling is in violation of an applicable regulation issued pursuant to § 23-24.1-3 or 23-24.1-4 of the Poison Prevention Packaging Act.

(b) Any drug dispensed by filling or refilling a written or oral prescription of a practitioner licensed by law to prescribe the drug, and any drug dispensed to an ultimate user by a practitioner, shall be exempt from the requirements of this section except subdivisions (a)(1), (9), and (11) of this section, and the packaging requirements of subdivisions (a)(7), (8), and (12) of this section, if the drug bears a label containing the name and address of the dispenser, the serial number and date of the prescription or of its filling, the name of the prescriber, and, if stated in the prescription, the name of the patient, and the directions for use and cautionary statements, if any, contained in the prescription. When a practitioner prescribes a drug by brand name, oral, written or electronic, he or she shall, in each prescription, authorize a less expensive generic equivalent drug product by signing the prescription. Pursuant to § 42-127.1-7 and chapter (19.1 of title 5) an electronic signature shall satisfy this requirement. If in the professional judgment of the prescribing practitioner the brand name is medically necessary, the practitioner shall indicate "Brand name necessary" on the prescription. This exemption shall not apply to any drug dispensed in violation of paragraph (a)(11)(i) of this section.

(2) When dispensing a generic drug product, the word "INTERCHANGE" or the letters "IC" must appear on the label followed by the generic name and manufacturer, and/or distributor, of the chosen product.

(3) The requirements of subdivision (2) of this subsection only apply to single entity, multiple-source drugs.

(4) When dispensing a single entity, single source drug, the trade name of the prescribed drug will also appear on the label, and the generic name of the prescribed drug may also appear on the label.

(5) When dispensing a fixed combination product, the United States Pharmacopoeia's publication of Pharmacy Equivalent Names (PEN Names) for fixed combination products is the official list of abbreviations for that labeling, and will be the approved abbreviation for identifying the combination product dispensed. If no PEN name has been officially issued by the USP, the practitioner or pharmacist will label the medication secundum artem.

(6) Subdivisions (2) – (5) of this subsection apply in all cases of dispensing by practitioners or pharmacists.

(7) Nothing in this section shall be construed to relieve any person from any requirement prescribed by or under authority of law with respect to drugs now included or which may subsequently be included within the classifications stated in chapters 28 and 30 of this title.

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Guiding Principles of Medication Administration

- Knowledge about the medication(s) to be administered.
- Knowledge about the individual's general health and the specific condition(s) that is being treated with medication.
- Knowledge about side effects and adverse reactions that may occur as the result of medication administration.
- ***Knowledge that there is no drug that is harmless! All medications, including over-the-counter (OTC) medications, have side effects.***
- Knowledge of the role, responsibility, and limitation of scope of practice of the Direct Support Staff person relative to medication administration. Understanding that Direct Support Staff are trained in certain limited procedures involving medication administration.
- Knowledge that some medication administration procedures are specific to the unique needs of the individual.
- Knowledge and the ability to administer medications accurately and safely.
- Knowledge of the correct route by which the medication is to be administered.
- ***Knowledge that in the developmental disabilities system, all medications including over-the-counter (OTC) medications, must be prescribed by a licensed health care provider***.
- Knowledge that all medications, including over-the-counter (OTC) medications must be labeled by a pharmacist. OTC medications should never be misused by taking them longer or in higher doses than prescribed. The licensed health care provider should label "Sample" medications with instructions for use.
- Knowledge and the ability to make correct observations about an individual's response to any medication, including over-the-counter medication (OTC), and report/document these observations.
- Knowledge and the ability to follow accepted ***Standard Precautions*** practices.
- Knowledge of safe, clean and appropriate storage of different types of medications. External liquid topical medication, e.g., Dermarest shampoo to treat psoriasis, should be stored separately from internal liquid preparations.

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- Knowledge of the proper setting in which a medication is to be administered. ***Respect of the individual's privacy is of tremendous importance.***

- Understanding the need to create a calm environment, free from distractions, to administer medications safely.

- Access to a licensed and knowledgeable person when in doubt about any procedure or directions. ***When in doubt, always seek assistance from the agency nurse!***

- Knowledge of the applicable rules and regulations at the federal, state, and local levels.

- Understanding that constant practice and upgrade of knowledge in medication administration is critical.

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Administration of Medication Definitions

"Administration of Medications" means a course of action that includes completing all of the steps of the following procedure:

a. Checking the individual's prescription label/licensed health care provider's order and the Medication Administration Record (MAR)
b. Following Standard Precautions and washing one's hands
c. Transferring the prescribed dose(s) of medication from the individual's prescription container
d. Special preparation of some medications (e.g., crushing tablets or mixing with food)
e. Administering medication to the individual or monitoring if the individual self-administers
f. Recording all medications given in the individual's medication administration record
g. Recording refusal of the medication in the individual's record, and notifying the appropriate agency personnel.

"Automatic Stop Order" means a policy whereby an individual's medication is automatically discontinued after a certain period of time, if the licensed health care provider has not indicated a specific time limit in the order.

"Controlled Substance" means a drug, substance or immediate precursor in Schedules I – V of Chapter 21-28 of the Rhode Island General Laws, as amended. Controlled substances are included in a Federal Classification system for drugs found to be habit forming and are assigned a schedule from I-V depending on their potential for abuse.

"Depressant" means a medication that lowers vital processes (also defined as an agent that will depress a body function or nerve activity).

"Direct Support Staff" means unlicensed agency personnel who have received training in providing supports to adults with developmental disabilities, and who are employed by developmental disabilities provider agencies licensed by the Rhode Island Department of Mental Health, Retardation and Hospitals. Direct Support Staff encourage attitudes and behaviors that enhance inclusion, and assist individuals with developmental disabilities to lead self-directed lives and contribute to their communities.

"Drug (Medication)" means a substance that is used internally or externally to:

a. Maintain health (e.g. vitamins)
b. Treat disease (e.g., antibiotics)
c. Relieve symptoms (e.g., pain relievers)
d. Prevent disease (e.g., vaccines)
e. Alter body processes (e.g., medication for high blood pressure or diabetes)
f. Diagnose disease (e.g., diagnostic agents such as barium).

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"Enteral" means a route of medication administration directly into the digestive tract through a gastrostomy tube (G tube) or jejunostomy tube (J tube).

"Ethics" means the science of moral values and moral codes of conduct that respects confidentiality and privacy.

"Health Care Record" means a collection of informational sheets and forms relative to an individual's health care/medical history.

"Law" means a written rule established by a government and applicable to its people.

"Licensed Health Care Provider" means a duly licensed Physician, Dentist, Certified Registered Nurse Practitioner, Podiatrist, or other licensed health care providers authorized by law to prescribe.

"Licensed Nurse" means a Registered Nurse (RN) or Licensed Practical Nurse (LPN) who holds a license in good standing to practice nursing in Rhode Island.

"M.A.R." means Medication Administration Record.

"***Medication Error"*** means the administration of a medication or treatment other than as prescribed, or the failure to administer a prescribed medication or treatment. By way of example, and not in limitation, a medication error includes:

a. Omission of a dosage(s) or failure to administer
b. Incorrect dosage(s)
c. Incorrect medication(s)
d. Medication(s) given by incorrect administration route
e. Medication(s) given at the incorrect time
f. Medication(s) given to the wrong person
g. Any inappropriate use of medications
h. Failure to follow agency procedures for medication administration
i. Medication or treatment given without an order from a physician or other licensed health care provider.

"Nursing Plan of Care" means a written description of the unique health care needs of the individual. The nursing plan of care is based on information obtained through a nursing assessment and provides direction and guidance to the Direct Support Staff providing the individual's care.

"Over the Counter (OTC) Medication" means a medication that may be obtained without a prescription (e.g., aspirin). "OTC" is the standard abbreviation.

Note: In the developmental disabilities system, OTC medications require an order/prescription written by a licensed health care provider.

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"Parenteral" means a route of medication administration that requires the use of a needle.

"Prescription Drug" means a drug (medication) that must be ordered by a licensed health care provider before it may be given. It is also known as a "legend drug".

"Poison" means a substance that may destroy life or impair health (e.g., arsenic).

"Regulation" means a rule that is an outgrowth of a law, in which the standards, principles, and methods are set forth to provide the details of how the law is to be carried out.

"Sedative/Hypnotic" means a medication that induces sleep and has a sedative effect.

"Self-Administration" means that an individual is able to take his/her own medications ***independently and without assistance*** from a Direct Support Staff person.

"Stimulant" means an agent that temporarily increases some body process (e.g., caffeine or amphetamines).

"Transcription" by Direct Support Staff means copying a new ***written*** medication order from the ***pharmacy prescription label*** onto the appropriate documentation form. Direct Support Staff shall receive specific training during this coursework and from the nurses at their respective agencies prior to being permitted to transcribe medication information.

Note: Direct Support Staff shall not be permitted, under any circumstances, to take telephone or verbal orders from licensed health care providers.

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Communication

"Communication" means an exchange of information using both verbal and nonverbal skills.

Important Factors Regarding Communication

The student must be aware of the important factors regarding communication in order to provide continuity of care and report significant observations to the nurses within their agencies. These factors include:

1. Addressing the individual you are supporting in terms that he/she will understand.
2. Respecting the rights of the individual at all times.
3. Observing, reporting and documenting the individual's:
   - physical, mental, and emotional condition
   - reactions and behavior
   - statements regarding his/her condition (e.g., feeling pain, numbness, dizziness)
   - likes and dislikes.
4. Recognizing, reporting, and documenting signs and symptoms of illness or injury. Listed below are examples of signs and symptoms that include but are not limited to:
   - Any accident or injury
   - Any medication side effects
   - Blue color to the lips/nails (cyanosis)
   - Blurred vision
   - Bowel symptoms such as blood in the stool, watery, hard, or black stools, undigested food in the stool, any change in the individual's typical bowel habits
   - Cough
   - Drowsiness/dizziness
   - Fever/chills/sweating
   - Excessive thirst
   - Nausea/vomiting
   - Pain; location/duration/description
   - Rapid/slow/shallow respirations
   - Rash
   - Shortness of breath
   - Skin symptoms such as redness, or breaks/tears in the skin
   - Swelling in the feet, ankles, face, hands (edema)
   - Unusual drainage
   - Urinary symptoms such as pain, burning, frequency, difficulty urinating, large/small output, blood in the urine, abnormal color or odor, changes in the individuals' urinary output

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Unit One
Practice Test

True or False Questions

1. __Direct Support Staff are considered licensed personnel.

2. ___Direct Support Staff may administer medications in nursing homes or hospitals

3. ___ Over-The-Counter (OTC) medications administered by Direct Support Staff require a written order/prescription from a licensed health care provider.

Multiple Choice (circle the correct answer).

1. A Direct Support Staff person is working in a group home and providing support to three individuals with developmental disabilities. An individual's licensed health care provider calls the group home and wants to give an order to decrease the Dilantin medication. What should the staff person do?

   A. Change the medication on the medication order sheet as instructed by the licensed health care provider.

   B. Take the order and notify his/her supervisor so the nurse can come in and write the licensed health care provider's order.

   C. Inform the licensed health care provider that Direct Support Staff are not permitted to take a medication order, and you will contact the agency nurse and ask the nurse to call the licensed health care provider.

   D. Call the individual's pharmacy so the pharmacist can write the order and send the correct medication to the home.

2. An individual's nurse practitioner has changed her Neurontin from 400 mg. to 300 mg. twice daily. When you get ready to give the medication you find 400 mg capsules only. What should you do?

   A. Open the capsule and discard some of the contents to get a lower dose.

   B. Do not administer the medication and follow the agency's policy for notifying the appropriate person (e.g., nurse, supervisor) of the situation so that arrangements may be made to obtain the correct medication.

   C. Omit this dose and wait until the correct medication is obtained for the next dose.

   D. Borrow the medication from another individual in the home.

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UNIT TWO

GENERAL MEDICATION INFORMATION

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UNIT TWO

GENERAL MEDICATION INFORMATION

OBJECTIVES:

After studying this unit the student will be able to:

1. Understand the purpose of certain types of medications.
2. Understand the various routes of medication administration.
3. Understand the various forms of medications.
4. Understand the types of potential side effects of medications.

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Key Words About Medications

Absorption
The ability of a medication to enter the bloodstream from the mucosa of the mouth, intestine, vagina, or rectum, or one of the parenteral routes.

Addiction or Psychological Dependence
A condition caused by repeated doses of certain drugs that cause an overwhelming need to continue taking the drug, and increase the dose that causes the physical dependence.

Adverse Reaction
Any response to a medication that is undesired, unintended, excessive or unexpected in doses recognized in accepted medical practice.

Aerosol
Particles suspended in a gas; usually used for medications that are inhaled or sprayed on the skin or mucosa.

Allergic Reaction
A response to a medication that may present itself as a simple or severe rash, and that may or may not progress to wheezing and difficulty breathing. ***Anaphylaxis*** is the severest form of an allergic reaction and may result in death if there is no intervention. In a severe reaction, the individual must be given medication to counteract the reaction. It is essential that Direct Support Staff administering medication be aware of the individual's food and drug allergies in order to avoid any danger to him/her.

Analgesics
Medications that reduce pain.

Buccal
A route of administration in which a medication is placed and held in the pocket of the cheek, at the back of the lower jaw, until it is dissolved.

Capsule
A gelatin container that encases (holds) a form of the medication.

Cumulative Effect
Many medications may not reach their peak effectiveness for several days or weeks. The medication may have to accumulate for this to happen, but at some point, the amount taken equals the amount excreted, and a steady level is achieved.

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Dose
Means the amount of medication given at one time.

Drug (used interchangeably with the word medication)
A substance used to maintain health, to diagnose, treat, or prevent disease, to relieve symptoms or to alter body processes.

Drug Action
The way in which a drug produces changes in the body cells and tissues.

Drug Effect
Physical or psychological changes that take place as a result of drug administration.

Elixirs
Preparations of medications in a sweetened alcohol base.

Emulsions
Mixtures of oil and water.

Enteral
A route of medication administration directly into the digestive tract through a gastrostomy tube (G tube) or jejunostomy tube (J tube).

Enteric Coated
A medication (usually a tablet or caplet) that is coated with a substance that dissolves in the intestine but not in the stomach in order to prevent stomach irritation and/or prevent stomach acid from breaking down the drug. ***Enteric coated medication should never be broken, crushed, or chewed!***

Extract
A solution/powder obtained by removing and concentrating drug ingredients from a plant or animal.

Form
How a drug is supplied; the form may be liquid, solid, or semi-solid.

Gelatin
A stiff, powdered substance that dissolves in water; used in making capsules.

Gelcaps
Gelcaps are very similar to a capsule but cannot be broken apart.

Idiosyncrasy
An individual's unique sensitivity to a particular medication or substance.

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Inhalation
A route of administration in which medication is sprayed or inhaled into the nose, throat, or lungs.

Inhibit
To decrease the effectiveness of a medication.

Initial Dose
The first dose of a medication.

Insertion
The act of placing medication into a body cavity, e.g., placing a suppository into the rectum or vagina.

Instillation
The act of placing drops of liquid into the eyes, ears, or nose.

Interaction
Two or more medications reacting together to change their intended effects on the body.

Irrigation
The act of rinsing with a solution.

Lethal Dose
A dose of medication that is likely to cause death.

Liniment
A liquid preparation that produces heat when it is applied to the skin and massaged.

Loading Dose
Large doses given at the beginning of treatment in order to quickly elevate the level of the medication in the blood.

Local
A medication action that affects a relatively confined area, e.g., applying liniment to a sore knee.

Lotion
A liquid preparation used externally, e.g., applying a moisturizing lotion to dry skin.

Maintenance Dose
A dose of a medication given regularly over a period of time to keep the level of medication in the blood at a steady state.

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Mucous Membrane
The moist, glossy lining in the body (such as in the mouth) that allows some substances to pass through the body tissue.

Ointment
A semi-solid preparation of medication that is applied topically to the skin or mucous membrane.

Overdose
A dose that is too large for the individual's age, weight, and physical condition.

Parenteral
A route of medication administration that requires the use of a needle (injections).

Pill
A spherical, solid form of medication.

Placebo
A medication-free preparation given as a "mock" drug.

Potentiate
To increase the effect of a medication.

Saliva
Digestive juice produced by glands inside the mouth to aid chewing and swallowing.

Scored
Indented lines on a tablet that allows it to be broken into halves or quarters. Medications that are not scored ***should not*** be divided into smaller dosages (the medication is not evenly distributed within the area of the tablet and under/over dosing may occur).

Soluble
A preparation that may be dissolved in liquid.

Solution
A liquid such as alcohol or water that contains a dissolved substance.

Spansule
A time released capsule that should not be crushed, chewed or opened.

Spray
Medication prepared as particles that may be administered through an atomizer.

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Sterile
Free from germs.

Sublingual
A route of administration in which a medication is placed and held under the tongue where it is dissolved.

Suppository
A soft, molded medication in a base that melts at body temperature when inserted into the rectum, urethra, or vagina.

Suspension
A liquid containing un-dissolved particles of a medication. A suspension should be shaken ***vigorously*** before being administered.

Synergistic effect
The action of two medications working together for an increased effect.

Syrup
Liquid preparations of medications in a sweetened water base.

Systemic
A medication action that affects the entire system.

Tablet
A molded disk of medication and the substance that binds the medication together.

Therapeutic Dose
The amount of a medication required for a beneficial effect.

Therapeutic Effect
The beneficial and intended effect of a medication that is obtained from a therapeutic dose.

Tincture
A medication that is diluted by mixing it in an alcohol base.

Topical Medications
Medications that are applied directly to the skin or mucous membrane. Common forms of topical medication include creams, lotions, and ointments.
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Transdermal Delivery System
A method of medication administration in which a patch is applied to unbroken skin allowing the medication to be slowly and continuously absorbed into the blood stream.

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Troche/Lozenge

A large flat medicated disc that is held in the mouth until dissolved. ***A troche or lozenge is used for local effect and should not be crushed, chewed or swallowed whole.***

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General Medication Information

Administering medications is a serious responsibility. There are thousands of medications on the market, and new ones are continually being approved. As a Direct Support Staff person administering medications, it is important to be aware of the types of medications you administer, and what resources are available to you to find information about the medications.

Sources

Medications come from various sources:

- Plants; leaves, roots (e.g., Digitalis)
- Animals; hormones from glands (e.g., Insulin)
- Minerals; earth (e.g., Iron)
- Synthetic; man-made (e.g., Aspirin)
- Semi-synthetic; combination (e.g., Tylox)

Purpose

The term "drug" or "medication" refers to a substance or mixture (other than food) that is used to do one or more of the following:

- Maintain health (e.g., Vitamins)
- Treat disease (e.g., Antibiotics)
- Relieve symptoms (e.g., Aspirin)
- Prevent disease (e.g., Vaccines)
- Alter body processes (e.g., Hormones)
- Diagnose disease (e.g., Barium)

Background

Drugs are mixed with various ingredients to make them suitable to be ingested. There are ingredients to make oral medications taste better. There are different concentrations or strengths of medications. Some ingredients allow medications to be applied to the skin or placed into the body such as the eyes, ears, or rectum. These are called ***forms of medication***.

Three (3) Basic Forms of Medications:

Medications are found as three (3) basic forms: ***liquid, solid, and semi-solid***.

The method for administering the medication depends on the form, properties, and the desired effects. If a medication is to be administered orally, it may be in a tablet, liquid, or powder form.

Liquid Medications: Forms of medications containing a drug that has been dissolved or suspended in a solvent. Two common solvents are water and alcohol.

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Elixirs
Preparations of medications in a sweetened alcohol base, e.g., Benadryl Elixir or Nyquil.

Emulsions
Mixtures of oil and water. They are milky in appearance, tend to separate upon standing for a period of time, and must be shaken before administering, e.g., Mineral Oil.

Fluid extracts
Concentrated fluid preparations of medications made by dissolving a crude plant or animal based drug in an appropriate solvent. It may be a liquid or powder depending on the degree of evaporation, e.g., Fletcher's Castoria.

Inhalers
Particles of medication suspended under pressure; measured dose release for oral inhalation, e.g., Alupent, Proventil.

Liniments
A liquid preparation that produces heat when it is applied to the skin and massaged, e.g., Ben Gay.

Lotions
Liquid preparations of suspended ingredients used externally to treat skin conditions such as dryness, e.g., Lubriderm or Keri lotion.

Mixtures or suspension
A mixture results when certain medications are combined with a liquid. A suspension results when fine particles of medications are suspended in a liquid. ***Mixtures and suspensions*** must be shaken or stirred vigorously before administering, e.g., Milk of Magnesia.

Sprays
Medications prepared for administration by an atomizer. Sprays are used for nose or throat conditions, e.g., Neo-Synephrine Nasal Spray.

Solutions
One or more drugs dissolved in an appropriate solvent. When the solvent is water, it is an "aqueous" solution, e.g., Hydrogen Peroxide.

Syrups
Liquid preparations of medications in a sweetened water base. Syrups are used to mask a bitter taste, e.g., Robitussin Cough Syrup.

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Tincture
A medication that is diluted by mixing it in an alcohol base, e.g., Tincture of Iodine.

Solid Medications: Forms of medication such as capsules, pills, tablets, and troches.

Capsules
Small containers made from gelatin. The medication is placed in the capsule, which dissolves in the stomach. Capsules are either "hard" or "soft".

- ***Hard Capsules*:** Used to dispense powdered drugs, e.g., Dilantin.
- ***Soft Capsules:*** Used to dispense oils/liquids, e.g., Vitamin E.
- ***Spansules:*** Time-release forms of a medication usually contained in a capsule. Small particles of the drug are coated with compounds that require varying amounts of time to dissolve. This provides for immediate as well as a time-released action. Spansules should not be opened, crushed, or chewed, e.g., Contact cold medication.

Pills
Small, globe-shaped form of medication that is easy to swallow. Tablets have largely replaced pills but the term is still widely used in referring to various forms of drugs.

Tablets
The most common form of medication used today. Tablets are small discs containing a medication and a cohesive substance that holds the tablet together. Tablets are pressed into molds of various sizes to shape them. The color of the tablet generally has nothing to do with the medication's content or action. Tablets are usually divided into two groups, coated or scored.

- ***Coated:*** Tablets may be coated because they taste bitter or discolor the teeth, e.g., Iron tablets; or irritate the lining of the stomach. Coated tablets should never be broken, crushed or chewed.
- ***Enteric-coated:*** Tablets that are designed to dissolve in the small intestine rather than the stomach, thereby prevent an irritating drug from upsetting the stomach, e.g., Aspirin.
- ***Scored:*** Tablets that are marked with indented lines that divide them into halves/quarters for easy breaking for proper dose. Medications that are not scored should not be divided into smaller dosages (the medication is not evenly distributed within the area of the tablet and under/over dosing may occur).
- ***Sustained-Release tablets:*** Tablets that dissolve slowly in the intestine, thereby releasing the medication gradually. Sustained release tablets should never be broken, crushed or chewed.

Troche/Lozenge
A large flat medicated disc that is held in the mouth until dissolved. ***A troche or lozenge is used for local effect and should not be crushed, chewed or swallowed whole***. The individual should be advised not to chew, swallow or drink water with a lozenge e.g., Cepacol.

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Semi-solids: Forms of medications such as creams, ointments, and suppositories.

Creams
A water-soluble medication applied topically to the skin.

Ointments
A semi-solid preparation of medication that is applied topically to the skin or mucous membrane, e.g., Zovirax, Bacitracin.

Suppositories
A soft, molded medication in a base that melts at body temperature when inserted into the rectum, urethra, or vagina. The base is most commonly glycerin but can be soap or cocoa butter, e.g., Dulcolax. Always check the package label as suppositories generally require refrigeration.

Note: Although medications are given because of the therapeutic effect, they can also be dangerous. Health care professionals licensed to prescribe medications know the actions of the medications and how they should be used. Remember there is no harmless medication, and there is no absolute correct dose. Each depends on the result achieved with a particular individual at a specific time. Therefore, observation of the individual's response to a medication is crucial.

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Medication Administration Definitions

The following definitions describe actions, effects, dosage, and reactions encountered in medication administration:

"Absorption" means the ability of a medication to enter the bloodstream from the mucosa of the mouth, intestine, vagina, or rectum, or one of the parenteral routes

"Adverse Reaction" Medications are given for a specific or desired effect. At times, medications may also have unwanted effects that range from minimal (dry mouth) to life threatening (respiratory distress). An adverse reaction may be a desirable effect; for example, Benadryl (antihistamine) taken for allergies, makes the person sleepy, thus allowing for some much needed rest. However, if the person needs to drive and be mentally alert the sleepiness side effect can become dangerous. Frequently an adverse reaction may occur initially but disappear after repeated dosages. It is extremely important to remember that some of these effects/reactions may be very severe, depending on the drug amount used, and the condition of the person. Observe/monitor closely, report, and document any unusual occurrence in the individual's mental or physical condition.

"Allergic Reaction" means a response to a medication that may present itself as a simple or severe rash, and that may or may not progress to wheezing and difficulty breathing. ***Anaphylaxis*** is the severest form of an allergic reaction and may result in death if there is no intervention. In a severe reaction, the individual must be given medication to counteract the reaction. It is essential that Direct Support Staff administering medication be aware of the individual's food and drug allergies in order to avoid any danger to him/her.

"Antagonistic/ Inhibit" means two drugs interact to cause a lessened response than one of them would have been expected to cause. This is also referred to as an ***inhibiting effect***.

"Cumulative Effect" means the accumulation of a medication in the body. Medications are normally metabolized (broken down chemically) and excreted from the body, some more rapidly than others. Medications have varying periods of ineffectiveness in the body, depending on their rate of metabolism, destruction, and excretion or retention. If the medication is administered continuously but excreted more slowly, it accumulates in the body and may produce one or more reactions. These reactions are called cumulative effect. Codeine and Digitalis are examples of medications that can accumulate in the body.

"Drug Action" means the way a drug produces changes in body cells and tissues.

"Drug Effect" means physical or psychological changes that take place as a result of drug administration.

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"Drug Interaction" means that two or more drugs react together to change their intended effects on the body. Often two or more medications may be given to an individual as a part of drug therapy; or, an individual may take what he/she believes to be a "harmless" over the counter (OTC) medication with other legend (prescription) medications. Whenever more than one medication is taken, there is the possibility that a drug interaction may occur.

"Dose" means the amount of medication given at one time. There are five (5) types of doses:

- ***"Initial dose"*** means the first dose administered.
- ***"Lethal dose"*** means a dose that is likely to cause death.
- ***"Loading dose"*** means a comparatively large dose given at the beginning of treatment in order to quickly elevate the level of the medication in the blood.
- ***"Overdose"*** means a dose that is too large for a person's weight, age and physical condition, and that is potentially dangerous. Depending on the medication involved and the amount of the overdose, it may be lethal if there is no intervention.
- ***"Therapeutic dose"*** means the amount of a medication required for a beneficial effect.

"Idiosyncrasy" means an unexpected, abnormal reaction that is specific to the individual and not due to drug overdose. An example of this would be excitement rather than relaxation and sleep following a dose of Halcion (a sleeping pill).

"Side Effect" means an action or effect of a medication other than the desired action/effect for which it was prescribed.

"Synergistic/Potentiate" means that two medications given together produce a more powerful effect than either of them would produce alone. Another word frequently used for the same effect is ***potentiated***. For example; an individual taking Valium is told to avoid alcohol, because alcohol causes this type of medication to have a stronger (even fatal) effect.

"Systemic" means medication that acts on the entire system. Systemic effects are noted only after the medication has been absorbed in the bloodstream and diffused into the tissues.

"Tolerance" means that over time a larger dose of a medication is necessary to produce the same effect that a smaller dose used to provide. For example, if an individual takes Valium for a long period of time, he/she may notice that a larger dose is necessary to accomplish the desired effect.

"Transdermal Delivery System" means a method of medication administration in which a patch is applied to unbroken skin allowing the medication to be slowly and continuously absorbed into the blood stream, e.g., Nicoderm (smoking cessation medication).

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Major Routes of Medication Administration

The route of medication administration is determined by:

- The medication's chemical and physical properties
- The site of the desired action
- The desired rapidity of the response to the medication

Oral Routes of Administration

Oral

Medications that are given by mouth, swallowed and then enter the stomach. These medications are digested in much the same manner as food. After being dissolved, oral medications are absorbed into the bloodstream. Consequently, most medications given orally have a systematic effect.

Buccal

Medications that are placed and held in the pocket of the cheek, at the back of the lower jaw. The medication is absorbed through the mucous membranes that line the inside of the cheek. Inform the individual that he/she should not eat or drink anything until the medication has dissolved.

Sublingual

Medications that are placed under the tongue, where they are held until dissolved by saliva. The medication is absorbed by the rich blood supply within the area. Some medications, sprays or liquid forms may also be administered sublingually. Instruct the individual not to drink water or swallow until the medication is dissolved. Examples of sublingual medications include Nitroglycerin (medication for angina or "chest pain") and Ergostat (medication for migraine headaches).

Non-Oral Routes of Administration

Dermal Patch

A method of administration of a medication by absorption through the skin. The patch is placed directly on the skin in the specified area. The area must be clean and free of hair. ***Gloves must be worn for this administration***. The Transdermal Patch must be time dated. The patch should not be placed in the same location on the body for each application. ***Follow the instructions in the MAR or the nursing plan of care for rotating the sites***.

Ear (otic) Medications

Medications may be placed into the ear by means of a dropper. Ear medications are usually administered to moisten impacted wax (cerumen) or to instill medications to treat infections, e.g., Auralgan and Debrox.

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Enteral
A route of medication administration directly into the digestive tract through a gastrostomy tube (G tube) or jejunostomy tube (J tube). ***Medication administration through a G tube or J tube requires specialized training from a nurse at your agency.***

Note: A Direct Support Staff person is not permitted to administer medication through a G tube or a J tube until he/she has received specialized training from a nurse at his/her agency, and has a signed certificate of competency from the nurse providing the training.

Eye (ophthalmic) Medications
Medications may be instilled into the eye by means of a dropper (for liquids) or a tube (for semi-solids).

Inhalation
Medication delivered by spraying or inhaling into the lungs. Medication is absorbed through the tiny sacs (alveoli) of the lungs. This form of medication is widely used for the treatment of asthma symptoms. Special devices such as inhalers or atomizers are available, thereby making inhalation therapy more convenient. Because germs may easily enter the body through the lining of the lungs, ***all equipment used for inhalation therapy must be kept exceptionally clean***. Medications used for this route are in the form of gases or fine droplets, sprays, or mists.

Nasal
Medications introduced into the nose by means of drops or sprays. Absorption is through the mucous membrane (lining) of the nose.

Parenteral Routes
A route of medication administration that requires the use of a needle (injections). The intradermal (ID) route is used frequently for such tests as allergy testing or the tuberculin test. In the ID route, the medication is injected between the layers of the skin. The subcutaneous (SQ) route is just beneath the skin, into the fatty layer. The SQ route is used, for example, to administer insulin. The intramuscular (IM) route is used for drugs that can irritate the subcutaneous tissue. The IM injection is directly into the muscle, e.g., a penicillin injection. The intravenous (IV) route is the parenteral route that involves medication being injected directly into the blood stream. The IV route provides the most rapid absorption.

Note: Parenteral administration is performed only by a Licensed Nurse.

Note: In the developmental disabilities system, some individuals who have diabetes self-administer their own insulin.

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Rectal
Medications that are administered rectally are usually in the form of suppositories. However, creams and ointments may also be prescribed. Absorption is through the mucous membrane (lining) of the rectum. This route is frequently used for laxatives in suppository form, e.g., Dulcolax. This may also be the best route when an individual is unable to take medication orally due to nausea/vomiting. Various pain relievers, antiemetics (medication to treat nausea/vomiting) and antipyretics (medication to reduce fever) come in suppository form.

Topical
Medications that are applied directly to the skin or mucous membrane. Common forms of topical medication include creams, lotions, and ointments.

Urethra
Medications introduced into the urethra and bladder by means of slender suppositories or through the means of a catheter ***(administered only by a licensed nurse***).

Vaginal
Medications introduced into the vagina by means of creams, suppositories, tablets, or other special applications. Medication is absorbed into the vaginal mucosa. Topical vaginal applications are used to treat local infections.

Additional Important Notes

- Medications should not to be placed in foods, beverages, or nutritional supplements (enteral feedings) unless specified by the agency nurse, licensed health care provider, or pharmacist.
- Medications should not be microwaved unless specified by the agency nurse, licensed health care provider, or pharmacist.
- Medications should not to be placed in the freezer unless specified by the agency nurse, licensed health care provider, or pharmacist.
- Medications that are expired or no longer needed by the individual should be destroyed according to your agency's policy and procedure. They are not to be kept for future use.

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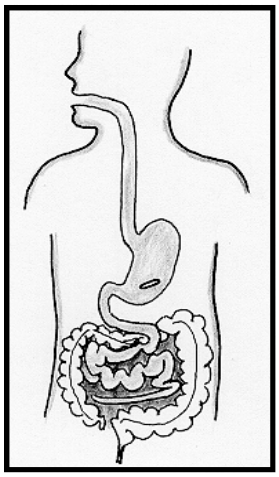
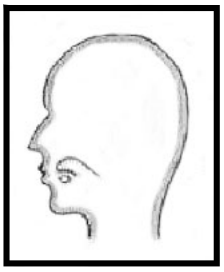
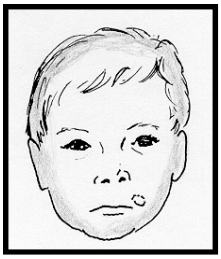
ORAL ROUTES OF MEDICATION



ORAL: Medications are given by mouth, swallowed and then enter the stomach. These medications are digested in much the same manner as food. After being dissolved, oral drugs are absorbed into the bloodstream. Consequently, most drugs given orally have a systematic effect. Certain drugs either poorly absorbed or absorbed not at all by the gastrointestinal (GI) tract. In such cases, these drugs can exert a local effect, as their actions are confined to the GI tract itself. Oral administration is the slowest way for the drug to reach the body's cells.



Sublingual: Medications placed under the tongue, where they are held until slowly dissolved by saliva. The medication is absorbed by the rich blood supply within the area. Some medications, spray or liquid form may also be administered sublingually. The person is to be informed not to drink water or swallow until the medication is dissolved. Examples: Nitroglycerin, used to reduce angina chest pain. Ergostat given for migraine headaches.

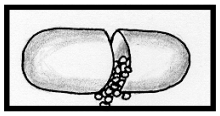


Buccal: Medications are placed in the cheek pocket, at the back of the lower jaw. The drug is absorbed through the mucous membranes that line the inside of the cheek. Inform the person not to eat or drink until the medication has dissolved.

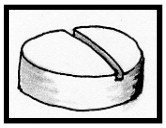
TYPES OF TABLETS AND/OR CAPSULES

Plain: "Untreated' tablets or capsules begin to be absorbed in the stomach; most absorption, however, takes place in the small intestine.

Coated: Tablets may be coated to disguise a bad taste, or to prevent staining the teeth. Enteric coated tablets, which do not begin the absorption process until they reach the small intestine are used if the medication is irritating to the stomach lining, or if the medication is destroyed by stomach acid.



Spansule: Sustained or time-released forms are absorbed slowly, over many hours. These forms contain several doses of medication, each of which is covered by a special coating that dissolves at different rates.



Scored: Tablet marked with indented lines, dividing the tablet into halves or quarters. This scoring allows the tablet to be easily broken to administer the proper dosage.

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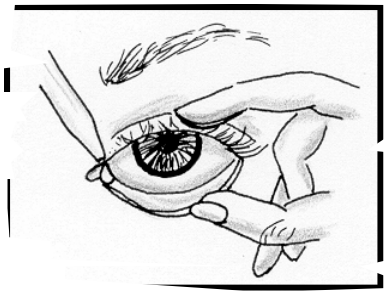
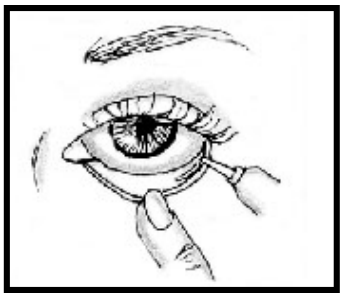
ROUTES OF ADMINISTRATION ILLUSTRATED DIAGRAMS

Eye (ophthalmic) Medications: Medications can be instilled into the eye by means of a dropper (for liquids) or a tube (for semi-solids).



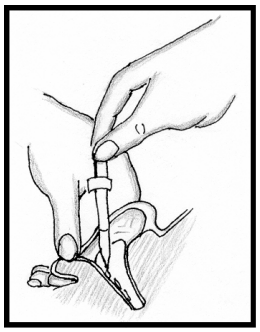
Liquids - eye drops
Example: Visine



Semi-solids - eye ointments
Example: Lacri-lube

Ear (otic) Medications: Medications can be placed into the ear by means of a dropper. Ear medications are usually administered to moisten impacted wax (cerumen) or to instill medications to treat infections.

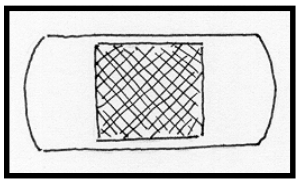
Example: Auralgan and Debrox

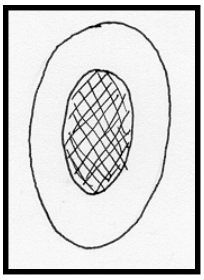


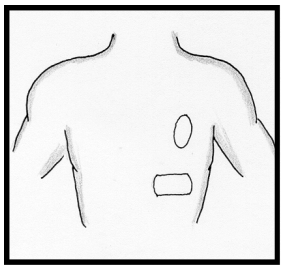
Ear-Drops

Transdermal Patch: Method of administration of a medication, by absorption through the skin. The patch is placed directly on the skin in the specified area. Area must be clean and free of hair. Gloves must be worn for this administration. The Transdermal patch must be time dated. The patch should not be placed in the same spot. The PCP or package insert gives advice on rotating sites

Example:Nitroglycerin







Dermal Patch

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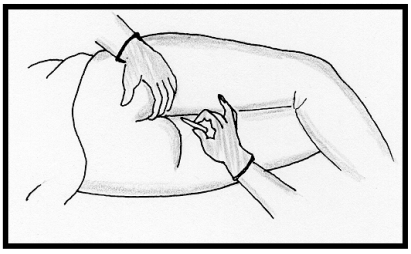
ROUTES OF ADMINISTRATION ILLUSTRATED DIAGRAMS

Rectal: Medications that are administered rectally are usually in the form of suppositories. However, creams and ointments may also be prescribed. Absorption is through the mucous membrane (lining) of the rectum. This route is frequently used for laxatives in suppository form.

Example: Dulcolax

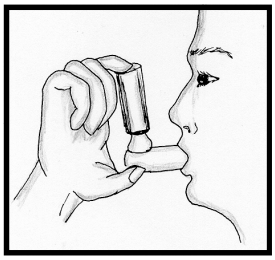
This may also be the best route when an individual is unable to take medication orally due to nausea/ vomiting or one who is unconscious. There are various pain relievers, antiemetics, and antipyretics that come in suppository form.



Rectal

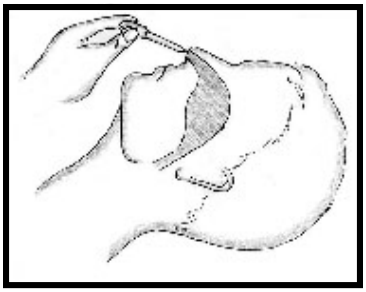
Rectal

Inhalation: Medication delivered by spraying or inhaling into the lungs. Medication is absorbed through the tiny sacs (alveoli) of the lungs. This form of medication is widely used for the treatment of asthma symptoms. Special devices such as inhalers or atomizers are available, that make inhalation therapy more convenient. Because germs can easily enter the body, through the lining of the lungs, all equipment used for inhalation therapy must be kept exceptionally clean. Medications used for this route are in the form of gases or fine droplets, sprays, or mists. These medications may be administered by a respiratory therapist. Therefore, check the agency policy before giving these medications.



Inhalation

Nasal: Medications introduced into the nose by means of drops or sprays. Absorption is through the mucous membrane (lining) of the nose.



Nose Drops

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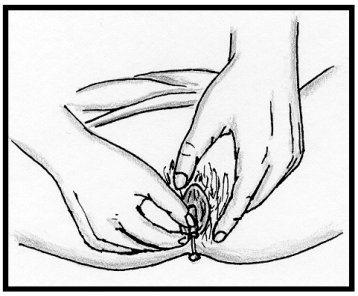
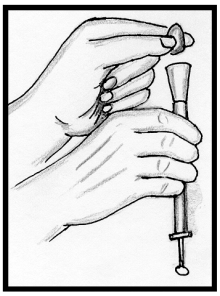
ROUTES OF ADMINISTRATION ILLUSTRATED DIAGRAMS

Vaginal: Medications can be introduced into the vagina by means of creams, suppositories, tablets, or other special applications. Medication is absorbed into the vaginal mucosa. Topical vaginal applications are used to treat local infections.



Vaginal



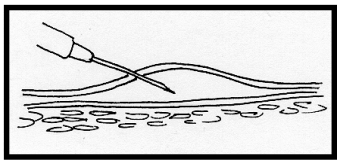
Urethral: Medications can be introduced into the urethra and bladder by means of slender suppositories or through the means of a catheter.
(only administered by a licensed nurse.)

Enteral Routes: A route of medication administration directly into the digestive tract through a gastrostomy tube (G tube) or jejunostomy tube (J tube).
Medication administration through a G tube or J tube requires specialized training from a nurse at your agency.

Enteral routes for medication administration may be due to short term or long term need to receive nutrition and fluids directly into the digestive tract instead of by mouth. The Enteral route includes administration through a gastrostomy tube (G tube) or jejunostomy (J tube)

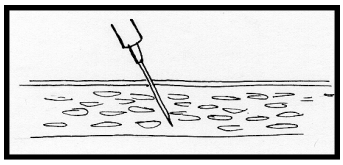
Note: A Direct Support Staff person is not permitted to administer medication through a G tube or a J tube until he/she has received specialized training from a nurse at his/her agency, and has a signed certificate of competency from the nurse providing the training.

Parenteral Routes: Refers to all routes of medication administration other than oral. However, it is most commonly used to indicate medications that are given by injection.



Intradermal

The **intradermal (ID)** route is used frequently for such tests as allergy testing or the tuberculin test. In the ID route, the medication is injected between the layers of the skin. **(only administered by a licensed nurse.)**



Subcutaneous

The **subcutaneous (SQ)** route is just beneath the skin, into the fatty layer. The SQ route is used, for example, for local anesthetics. Medications that may be used include insulin. **(Only administered by a licensed nurse)**

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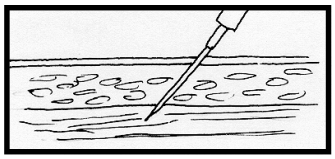
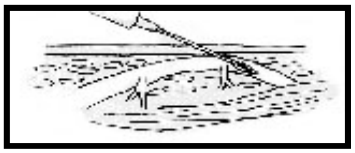
The **intramuscular (IM)** route is used for drugs that can irritate the subcutaneous tissue. The IM injection is directly into the muscle, such as in a penicillin injection. **(Only administered by a licensed nurse.)**



Intramuscular

The **intravenous (IV)** route is the parenteral route that involves medication being injected directly into the blood stream. The IV route provides the most rapid absorption. **(Only administered by a licensed nurse.)**



Intravenous

Note: Parenteral administration is performed only by a Licensed Nurse.

Note: In the developmental disabilities system, some individuals who have diabetes self-administer their own insulin.

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Unit Two
Practice Test

Multiple Choice (circle the correct answer)

1. A response to a medication such as wheezing or a rash is known as:

   A. Cumulative effect

   B. Allergic reaction

   C. Therapeutic effect

2. A soft, molded medication in a base that melts at body temperature is a:

   A. Suspension

   B. Gelatin

   C. Suppository

3. A liquid containing un-dissolved particles of a medication that must be shaken before administration is a:

   A. Ointment

   B. Lotion

   C. Suspension

4. Insulin injections may be given by:

   A. Direct Support Staff

   B. An individual who self-administers his/her own insulin

   C. Licensed Nurses

   D. B and C

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UNIT THREE

ACCEPTED ABBREVIATIONS

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UNIT THREE

MEDICATION ABBREVIATIONS

Objective:

After completing this unit, the student will be able to:

1. Recognize and describe a finite set of common medication abbreviations.

While there are numerous medical abbreviations, the current conventional wisdom is that the potential for medication errors decreases if medication orders are transcribed onto the medication administration record without using abbreviations. Therefore, this coursework will describe a very finite set of common abbreviations that Direct Support Staff should know.

Abbreviation	***Meaning***
@	At (e.g., @ 8 AM)
AM or a.m.	In the morning; before noon
BP	Blood pressure
D/C or Disc.	Discontinue
G tube	Gastrostomy tube
HS	Hour of sleep (bedtime)
J tube	Jejunostomy tube
MAR	Medication Administration Record
NPO or n.p.o	Nothing by mouth
OTC	Over-the-counter (refers to medications that may be purchased without a prescription, e.g., Tylenol, Advil.
PM or p.m.	Afternoon or evening
PRN	As needed (as circumstances require)

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UNIT FOUR

Using a Medication Information Resource

Major Categories of Medications

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UNIT FOUR

Using a Medication Information Resource
Major Categories of Medications

Objectives:

After completing this unit, the student will:

1. Understand how and when to use a medication information resource.

2. Understand the major categories of medications.

Introduction to the Student

In this unit you will begin to use what you have already learned in a problem-solving approach to obtaining information concerning medications. Every Direct Support Staff person who administers medications is required to know each medication's category, intended use, side effects, adverse reactions, warnings, and special considerations. Prior to administering any medication, the Direct Support Staff person is also required to check the Medication Administration Record to ensure that he/she is administering the correct dose through the correct route.

Medication Information Resources include:

- Pharmacy generated medication information sheets
- Agency approved medication information websites
- Approved drug reference handbooks

***Note:* The nurse at your agency will instruct you as to the type and location of medication resource information in the homes and other places where you will be working.**

As part of your practicum training in this course, you will be instructed in how to use pharmacy generated medication information sheets and drug reference handbooks to learn more about the medications that you will be administering. ***If you will be using website medication resources at your agency, you will receive on-site training from the agency nurses.***

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Individuals with disabilities have a right to be fully informed about the medications they are taking. Know and follow your agency's policies regarding the personnel (e.g., nursing staff) responsible for providing this information to the individual and how it is to be provided.

Note: ***It is important to be aware that Direct Support Staff are not responsible for "diagnosing" or interpreting observations related to the effects of medications. ALWAYS report your concerns even if it is simply that something does not "seem right". It is better to report questionable instances than to ignore them!***

REMEMBER!!!

NEVER ADMINISTER A MEDICATION WITH WHICH YOU ARE UNFAMILIAR.

CONTACT THE AGENCY NURSE OR YOUR SUPERVISOR FOR HELP!

WHEN IN DOUBT ALWAYS PLACE THE INDIVIDUAL'S HEALTH AND SAFETY FIRST!

YOU MAY BE THE ONLY LINK BETWEEN SAFETY AND INJURY, OR DEATH!

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Key Words To Know About Medications

Adverse Reaction
Any response to a medication that is undesired, unintended, excessive or unexpected in a dosage that is recognized in accepted medical practice.

Brand (Trade) Name
The licensed name of a medication as it is prepared and sold by a specific manufacturer.

- The brand/trade name is often represented by this symbol: ®

Category
A "family" or classification of medications.

Contraindications
Conditions under which the medication should not be used or used with extreme caution.

Generic Name
The name given to a new medication by the manufacturer, subject to approval by the American Medical Association (AMA) and the World Health Organization (WHO). A generic medication tends to be less expensive than trade name medications.

Indication
The reason or purpose for using the medication.

Idiosyncrasy
An individual's unique sensitivity to a particular medication or substance.

Official Name
The medication name printed in the United States Pharmacopoeia/National Formulary (USP/NF).

Precaution
Special conditions that may alter the medication effects and that should be considered when prescribing the medication.

Side Effects
An action or effect of a medication other than the desired action/effect for which it was prescribed. ***All medications have side effects.***

Warnings
"Red Light" conditions that alert us to possible complications, interactions, or situations that may need further attention. ***Warnings are usually noted by a red sticker that the pharmacist places on the medication label.***

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Major Categories of Medication

Analgesic
Medications that reduce pain, e.g., Advil, Aspirin, Tylenol.

Antacid
A medication used to reduce or eliminate acids in the stomach, e.g., Digel, Maalox, Riopan.

Antianxiety
A medication used to treat anxiety, e.g., Ativan, BuSpar, Valium, Xanax.

Antiasthmatic
A medication used to treat asthma, e.g., Alupent, Flovent, Proventil.

Antibacterial/Antibiotic
A medication that kills or slows the growth of bacteria, e.g., Cipro, Levaquin, Pen-Vee K, Zithromax.

Anticoagulant
A medication used to slow blood clotting, e.g., Coumadin.

Antidepressant
A medication used to treat depression, e.g., Celexa, Paxil, Prozac, Zoloft.

Antidiarrheal
A medication used to treat diarrhea, e.g., Imodium, Lomotil, Kaopectate.

Antiepileptic/Anticonvulsant
A medication used to prevent or control seizures, e.g., Depakote, Dilantin, Neurontin, Tegretol.

Antifungal
A medication used to treat fungal infections, most specifically, candidiasis of the vagina, e.g., Monistat.

Antihistamine
A "drying" medication used to treat allergic symptoms, e.g., Atarax, Benedryl, Claritin, Zyrtec.

Antiparkinsonism Medication
A medication used to treat Parkinson's disease, or Parkinson-like symptoms that may or may not be caused by other drugs, e.g., L-dopa, Sinemet.

Antipyretic
A medication used to reduce fevers, e.g. Aspirin, Tylenol.

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Bronchodilators
A medication used to expand the bronchial tubes (passageways for air to enter the lungs) by relaxing bronchial muscle, e.g., Intal, Serevent, Singulair.

Cardiovascular Medication
A medication used to treat various circulatory disorders such as angina, arrhythmias (irregular heartbeat) and high blood pressure, e.g., Cardizem, Diovan, Nitroglycerin.

Diuretic
A medication used to increase urinary output, e.g., Hydrodiuril, Lasix.

Expectorant
A medication used to induce coughing and flow of fluid from the respiratory tract, e.g., Robitussin PE.

Laxative
A medication used to stimulate and loosen the bowels, e.g., Citrucel, Dulcolax, Milk of Magnesia.

Mineral Supplements
Medication used to replenish specific electrolytes, e.g. potassium supplements such as Slow-K or K-Lor.

Hypoglycemic (Oral and Injectable)

- ***Oral Hypoglycemic:*** A medication used to treat and control mild and uncomplicated diabetes, e.g. Avandia, Glucotrol, Glucophage.
- ***Injectable Hypoglycemic:*** A drug used to treat diabetes that cannot be controlled by oral medication, e.g., Insulin.

Psychotropic
A medication used to treat psychiatric illness or to alter behavior, e.g. Haldol, Lithium, Risperdal.

Sedative/Hypnotic
A medication used to quiet activity or induce sleep, e.g., Ambien, Halcion, Restoril.

Topical Steroid
A medication used to treat dermatitis or various skin conditions due to insect bites, poison ivy, etc., e.g., Hydrocortisone cream.

Vitamins
Organic substances required for growth and maintenance of overall good health. Vitamins are obtained from the food that we eat, however there are times when supplements may be necessary, e.g., daily multivitamins, Vitamin C, Vitamin D, Vitamin E

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Considerations when Administering Medications with Known or Expected Precautions

When giving medications that may have effects that an individual should be aware of, it is essential not to frighten the individual but assure him/her that nothing bad is happening and the occurrence is a normal part of the medication's effect.

Examples:

"This is a vitamin called Theragran. It may cause your urine to become bright gold. This is a normal and expected effect of the medication, so please don't be worried if you see it".

"Your doctor has ordered Xanax to make you feel better. It can cause some dizziness; so don't get up too quickly. Sit for a while on the side of the bed and hang your legs over the side before you try to get up".

"Your doctor has ordered Seroquel to make you feel better. This medication can cause your mouth to feel very dry. Drinking enough water or putting a piece of hard candy in your mouth and letting it dissolve slowly may help your mouth to feel better".

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USING A CURRENT MEDICATION REFERENCE AS A PROBLEM SOLVER

As a general rule, staff members should:

1. Inform the person as fully as possible as to:

   - what the medication is supposed to accomplish.
   - what he/she might reasonably expect for side-effects and for adverse reactions.
   - what precautions are necessary.
   - whom to notify should something not "seem right".

2. Be aware of your employer's policies as to who provides this information to persons, and the amounts to be provided by various staff members.

3. Be aware that with increasing levels of training, the ability and responsibility to provide interpretations and assessments likewise increases. Direct Support staff trained to give medications must be extremely cautious in interpreting observations. It is far better to report questionable instances than to ignore them. This principle holds true even if one reports an observation that turns out to be insignificant.

When in doubt, consider the person's welfare:

You may well be the only link between safety and injury or death!

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Unit Four
Practice Test

Matching Questions
(using the following list, choose the word that best fits the definition):

A. Antidepressant

B. Antianxiety

C. Analgesic

D. Antibiotic

E. Side effect

F. Sedative/Hypnotic

G. Psychotropic

1. ___ A medication that kills or slows the growth of bacteria.

2. ___ A pain relieving medication.

3. ___ A medication used to treat depression.

4. ___ A medication that quiets activity or induces sleep.

5. ___ An action or effect of a medication other than the desired action/effect for which it was prescribed.

6. ___ A medication used to treat anxiety.

7. ___ A medication used to treat psychiatric illness or to alter behavior

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UNIT FIVE

BODY SYSTEMS

AND

BASIC OVERVIEW OF DISORDERS AND DISEASES

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UNIT FIVE

BODY SYSTEMS

AND

BASIC OVERVIEW OF DISORDERS AND DISEASES

Objectives:

After completing this unit, the student will:

1. Have knowledge of basic body systems, disorders and diseases.

2. Understand the phases of the swallowing mechanism.

3. Understand the causes and signs of aspiration, and ways to prevent aspiration from occurring.

4. Recognize that certain medications may interfere with swallowing or cause Gastroesophageal Reflux Disease (GERD).

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Body Systems

SYSTEM	ANATOMY AND MAJOR ORGANS	PHYSIOLOGICAL FUNCTION
Skeletal	Bones, cartilage	Supports & protects
Muscular	Joints, muscles	Moves & shapes
Nervous	Brain, spinal cord, nerves	Controls and coordinates bodily activities. Carries impulses to and from the brain
Circulatory (cardiovascular)	Heart, blood vessels, lymph	Carries nutrients and oxygen to the cells via the blood; removes waste
Respiratory	Mouth, nose, trachea, lungs, bronchi, alveoli	Provides air (oxygen) to the cells; removes wastes such as carbon dioxide
Reproductive	Ovaries, uterus (female), testes (male)	Supports procreation
Urinary	Kidneys, ureter, urinary bladder, urethra	Removes waste from the blood, produces urine, maintains water balance
Gastrointestinal	Mouth, esophagus, stomach, liver, gallbladder, small and large intestine, pancreas	Takes in food and prepares it for use by the body, and excretes waste (feces)
Endocrine	Thyroid, pancreas, testes, adrenal glands	Secretes chemicals called hormones that regulate body functions, metabolism, and reproduction
Integumentary	Skin, sweat and oil glands	Protects the body from harmful germs, helps regulate temperature; serves an excretory function
Sensory	Eyes, ears, nose, mouth and skin	Sight, hearing, taste, smell and touch

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OVERVIEW OF BODY SYSTEMS:
Anatomy, Physiology, Pathology, Pharmacology

This unit is composed of an overview of body systems and drugs affecting each system.

Anatomy, Physiology, Pathology

The science of the body's structure is **anatomy.** It is difficult to separate from the science of body function **physiology** since both work together. **Pathology** is the study of disease and the symptoms and signs of disease.

Overview of Parts of the Body

Adrenal Glands
Produce hormones that prepare the body to "fight or flight".

Alveoli
Part of the respiratory system in which absorption of oxygen and giving off carbon dioxide takes place.

Arteries
Carry blood away from the heart in order to provide oxygen to the tissues.

Auricle
Part of the ear that projects from the head.

Brain
Part of the Nervous System.

Cranial Nerves
12 pairs of a type of tissue that send and receive signals to and from the brain.

Epidermis
The outer covering of the skin.

Fallopian Tube
Part of the female body that transports the egg to the uterus.

Kidney
Blood is filtered in this organ and liquid waste products collect in the form of urine.

Lacrimal Gland
Produces tears to keep the eye moist.

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Large Intestine
One of the routes that drugs are eliminated from the body, along with undigested solid waste.

Liver
Medication and poison detoxification takes place in this organ.

Ligaments
Bands of tissue that hold bones together.

Pancreas
Produces insulin and other hormones.

Prostate Gland
Part of the male body which produces fluid that is part of semen.

Red Blood Cells
Contains hemoglobin that binds with oxygen to supply and nourish tissues.

Small Intestine
Part of the body in which most of digestion and absorption of nutrients take place.

Subcutaneous Tissue
Adipose "fatty" tissue.

Tendons
Attach muscles to bone.

Testes
Part of the male reproductive system that produces sperm.

Thyroid
Produces a hormone that controls the rate at which the body burns food.

Ureter
Carries urine from the kidney to the bladder.

Veins
Carries blood to the heart.

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Pharmacology and the Body Anatomy - Therapeutic

Pharmacology is the science of drugs and their uses and actions within the body. Specifically, pharmacology is the study of drugs: their sources, chemical makeup, preparation, and uses in everyday life. Pharmacology includes the study of how specific chemicals affect the human body. In medicine, we are concerned with drugs that help prevent, diagnose, and treat human disease. Drugs for our use then are called **Therapeutic** drugs. When the licensed health care provider wants a therapeutic effect to take place, he/she must base their selection on prescribing the:

- best drug in the
- right dose for the
- right person at the
- right time by the
- right route

Pharmacology attempts to describe both the desired effects and the side effects/ adverse reactions of drugs. It focuses, too, on the proper amounts of drugs to be given and how drugs are given. Knowledge of the laws and responsibilities surrounding drug use, along with practical experience in giving medication, will equip you to play a vital role in the health care team.

Drugs are essential elements in the care of the individual . However, they can be abused with serious results. The safe administration of medications requires sound and current knowledge of any drug's:

- mode of action - or how the drug works
- side effects
- toxicity
- range of dosage: varies according to an individual's response to a particular medication
- rate and route of excretion (ways drugs leave the body)
- idiosyncratic responses

You will not be required to have in-depth knowledge of each of the items listed above. Nurses, along with physicians, dentists, and pharmacist, are usually held legally responsible for a safe and therapeutic drug regimen. However, each person administering medication is liable for his/her actions or non-actions (omissions) when proper care is not provided. This includes medications that are not administered as ordered. For example, a licensed nurse is not exonerated (exempt) from certain responsibilities when drugs are administered by others. Indeed, all members of a health-delivery team may be held liable for a single injury to a person. It is only through education, training, proper supervision and a realization of one's own limitations, that safe and effective care may be rendered to those for whom we are responsible.

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Direct Support Staff administering medication should review where to find information about the individual's:

- allergies to drugs
- contraindications to drugs
- precautions in use (usually on label)
- interactions between drugs and some foods (.e.g. milk and antibiotics)
- warning symptoms (e.g. severe headache when taking oral contraceptives).

Drug Action

Drug actions means the interaction between drugs and living things such as the human body. It refers to the chemical changes that drugs cause in the body cells, and how those chemical changes alter body functions. Drug action describes the way drugs cause chemical changes in body cells. All drugs have multiple actions.

PRINCIPAL ACTION, SIDE EFFECTS/ADVERSE REACTIONS, DRUG EFFECTS

In actual use, the drug is selected because of its **principle action** - that particular one of its several effects which is wanted and intended. At the same time, its other actions known as **side effects/adverse reactions** may occur. Some of these are trivial and unimportant (e.g., discolored urine), others more significant (e.g., sleepiness), while still others are more critical (e.g., mental confusion). **Drug effects** are the physical and psychological changes that occur in the body as a result of the drug action.

Major Actions

Major actions of a medications, consist of:

- stimulate body cells (i.e., Adrenalin)
- slow down cells (i.e., Seconal)
- kill or invade organisms (i.e., Penicillin)
- replace substances (i.e., Iron)
- irritate body cells (i.e., Castor oil, Dulcolax)
- relieve symptoms (i.e. Aspirin, Tylenol).

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Principal Action, Side effects/Adverse Reactions, Drug Effects

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- irritate body cells (i.e., Castor oil, Dulcolax)
- relieve symptoms (i.e. Aspirin, Tylenol).

Once a drug is taken, it enters into certain processes that go on in the body at all times. These processes are the body's normal means of using food and oxygen to produce energy. Drugs are treated just like any other substance that enters the body, such as food or liquids. The only difference is that each drug interacts in a different way with the normal processes carried on by body cells. These interactions are determined by many things: the size and shape of the drug molecules, their ability to dissolve in water or fat, the pH balance of drugs and cells, or the electrical charges of molecules. The details are not as important as an understanding of five basic body processes that affect drug actions:

RECEPTION, ABSORPTION, DISTRIBUTION, METABOLISM, AND EXCRETION.

1. Reception:

Medication is introduced in the body through oral, vaginal, rectal, inhalation, parenteral, or topical route.

2. Absorption:

No matter where they enter the body, sooner, or later most drugs pass into the bloodstream and circulate throughout the body. The passage of a substance from the site of administration into the bloodstream is called **absorption.**

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3. Distribution:

After a drug is absorbed into the bloodstream, it is carried throughout the body by the blood. Some of the drug passes out of the bloodstream through the thin walls of the capillaries. The drug then enters body cells through pores in the outer cell layers. It may also pass right through cells into the fluid-filled spaces between the cells. This movement of the drug into the body cells and into the spaces between the cells is called distribution.

Distribution is affected by the chemical makeup of the drug, the amount of drug given, and cell conditions such as pH. If distribution is slow, the effect of the drug is not felt until some time after administration. If distribution is fast, drug effects are noticed almost immediately after administration.

4. Metabolism:

After a drug has reached body cells and done its work the process of **metabolism** begins to occur. This is a series of physical and chemical reactions that break down the drug into different substances that are easier for the body to eliminate. This is a natural process much like digestion of food. It is necessary so that the body can rid itself of the waste products that are left over after the cells make use of nutrients or drugs.

Enzymes are special body chemicals that speed up the process of metabolism. They cause chemical reactions to occur many thousands of times faster than they ordinarily would. Most of the metabolism of drugs takes place in the liver. This very important organ is responsible for many body chemical reactions. Also, metabolism occurs in the kidneys. (A smaller amount of metabolism also takes place to some extent in the lungs and the intestines.)

Some drugs cannot work on body cells UNTIL they are broken down chemically, so that metabolism actually changes them into effective drugs. Other drugs become inactive and lose their power to work on body cells when they are metabolized. With some drugs, this is good, because if these drugs were to remain unchanged in the body, they could collect and cause harm.

5. Elimination:

Elimination is the body's way of removing the waste products of ordinary cell processes. Drugs are excreted in the same way as other waste products. Most drugs leave the body through the kidneys and the large intestine. In the kidneys, blood is filtered and liquid waste products collect in the form of urine. In the large intestine, undigested solid wastes collect in the form of feces.

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Some elimination also takes place in the lungs, where gaseous wastes, such as carbon dioxide and some types of drugs, are collected from the blood stream. These are excreted when a person exhales. Anesthetic gases such as ether are sometimes excreted through the lungs. (Milk glands also excrete some types of drugs. This is an important fact to know when giving medications to nursing mothers.)

If a drug is excreted quickly, its effects are short-lived. When it is excreted slowly its effects last longer. The rate of excretion depends on the chemical composition of the drug, the rate of metabolism, and how often the drug is administered. The condition of excreting organs will also determine how quickly and completely excretion takes place.

Factors Affecting Drug Action

No two people are exactly alike, and no drug will affect every human body in exactly the same way. Body cells differ according to a person's age, size, sex, genetic inheritance, physical and emotional condition, and biorhythms. These personal characteristics may cause slightly different drug actions in several people given the same drug. Factors surrounding the administration of medications may also cause differences in people's response to a drug. The route of administration, the rate of absorption, the form of the medication, the time of day, and the number and size of doses all play a role in drug action.

Aging

Medical dictionaries define aging as the process of growing older. Some diseases are difficult to separate from aging because they occur to some extent in all persons with time. These age-related diseases include arteriosclerosis, hypertension, degeneration of the skin, cataracts, arthritis, hearing and visual loss, and loss of mental capacity. Other diseases, such as cancer, are age-associated in that their incidence increases with age.

The aim of health care is to alleviate pain and disability, and to prolong life. Therefore, in order to understand why one administers medications, one must understand the anatomy, physiology, pathology, and pharmacology of the body, and the effects that drugs will have on each.

Medicines are prescribed for their effects on cells, tissues, and organs. No medicine is completely free of adverse (unwanted and potentially harmful) effects. By knowing desired or undesired effects, one improves the ability to provide quality care.

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GENERAL CONSIDERATIONS FOR THE NERVOUS SYSTEM DIRECT SUPPORT STAFF ADMINISTERING MEDICATION SHOULD BE AWARE OF:

1. Speak in short, simple sentences when talking to an individual receiving medication for a nervous system disorder.

2. Give frequent explanations if questions are asked.

3. Approach the individual in a calm manner.

4. Listen to the individual's fears and concerns.

5. Medications should not be abruptly stopped unless very serious side effects/ adverse reactions which may be potentially fatal occur. (If the individual refuses his/her medication, notify the licensed nurse immediately.)

6. Document all observations carefully.

Remember the five major considerations for the individual receiving medications affecting the nervous system:

1. Safety

2. Activity

3. Respite

4. Structured environment

5. Support.

Disorders and Diseases

Acquired Immune Deficiency Syndrome (AIDS)
AIDS is caused by a virus called HIV, the Human Immunodeficiency Virus. AIDS affects the immune system and makes the individual susceptible to a variety of infections.

Alzheimer's Disease
A chronic, progressive disease that causes changes in the brain. Alzheimer's is a form of dementia and affects the individual's memory, mood, and behavior.

Angina
Lack of oxygen to the heart; may cause chest pain.

Asthma
A common disease of the respiratory system that is usually caused by allergens, e.g., pollen or mold.

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Arthritis
An inflammation of one or more joints.

- ***Rheumatoid arthritis*** is a chronic disease characterized by stiffness and inflammation of the joints, loss of mobility, weakness, and deformity. Rheumatoid arthritis affects fairly young individuals.
- ***Osteoarthritis***, also known as degenerative arthritis, occurs in older individuals. The symptoms of osteoarthritis are typically pain, swelling in the joints, and decreased movement.

Cancer
An "umbrella" term used to describe a disease in which there is an uncontrolled growth and spread of abnormal cells. There are many different types of cancer affecting various organs in the body.

Cardiovascular Accident (Stroke)
Blood flow to the brain is interrupted either because of bleeding into the brain or a blood clot. There are two major kinds of stroke:

- ***Ischemic stroke*** is caused by a blood clot that blocks a blood vessel or artery in the brain
- ***Hemorrhagic stroke*** is caused by a blood vessel in the brain that breaks and bleeds into the brain.

Cataract
Clouding of the lens of the eye causing the pupil to appear milky and decreasing the individual's vision.

Congestive Heart Failure
Weakness of the heart muscle causing fatigue, edema, cough, shortness of breath, and fluid retention.

Diabetes Mellitus
A condition in which the body is unable to properly use carbohydrates (some individuals who have diabetes control it with dietary changes, while others require oral medication or insulin).

Emphysema
The alveoli of the lungs lose their elasticity and their ability to take in oxygen and give off carbon dioxide.

Epilepsy
A disorder characterized by recurrent seizures (a seizure is a sudden, involuntary muscle contraction and/or change in consciousness, behavior, sensation or self-controlling function).

Gastroesophageal Reflux Disease (GERD)
Backward flow of stomach contents into the esophagus causing discomfort in the chest, and possible vomiting, indigestion, bleeding. GERD increases the risk of developing esophageal cancer.

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Hepatitis
Inflammation of the liver caused by a virus.

Hypertension (High Blood Pressure)
Blood pressure that is higher than the "normal" range. Hypertension is generally defined as a blood pressure reading of 140/90 or higher.

Hypothyroidism
A disorder caused by an insufficient amount of thyroid hormone. Some symptoms may include obesity, dry skin and hair, low tolerance to cold temperatures.

Infection
The presence and growth of a microorganism (a "germ") that produces a localized response (confined to one area of the body) or a systemic response (carried through the body by the bloodstream). Infections are typically caused by bacteria, viruses, fungi, or parasites.

Myocardial Infarction
A blockage of an artery of the heart, causing heart muscle damage (heart attack).

Osteoporosis
A disease in which bones become thin, fragile, and break easily due to the loss of calcium. The bones that are most commonly affected are the hip, spine, and wrist.

Otitis Media
An inflammation of the middle ear.

Pneumonia
An inflammation of the lungs that is usually caused by a virus or bacteria, or may be caused by aspiration of food, fluid, or gastric contents into the lungs.

Psoriasis
Red patches of skin with silvery scales that may shed and bleed.

Seizure
An episode of sudden, involuntary muscle contractions and/or changes in consciousness, behavior, sensation or self-controlling functions. There are different types and causes of seizures ***(not all seizures are caused by epilepsy).***

Sepsis
A condition in which an infection has spread from a localized site into the bloodstream, initiating a systemic response. Bacterial infections are the most common cause of sepsis.

Tardive Dyskinesia
A side effect of certain medications that may include involuntary and repetitive movements of the muscles.

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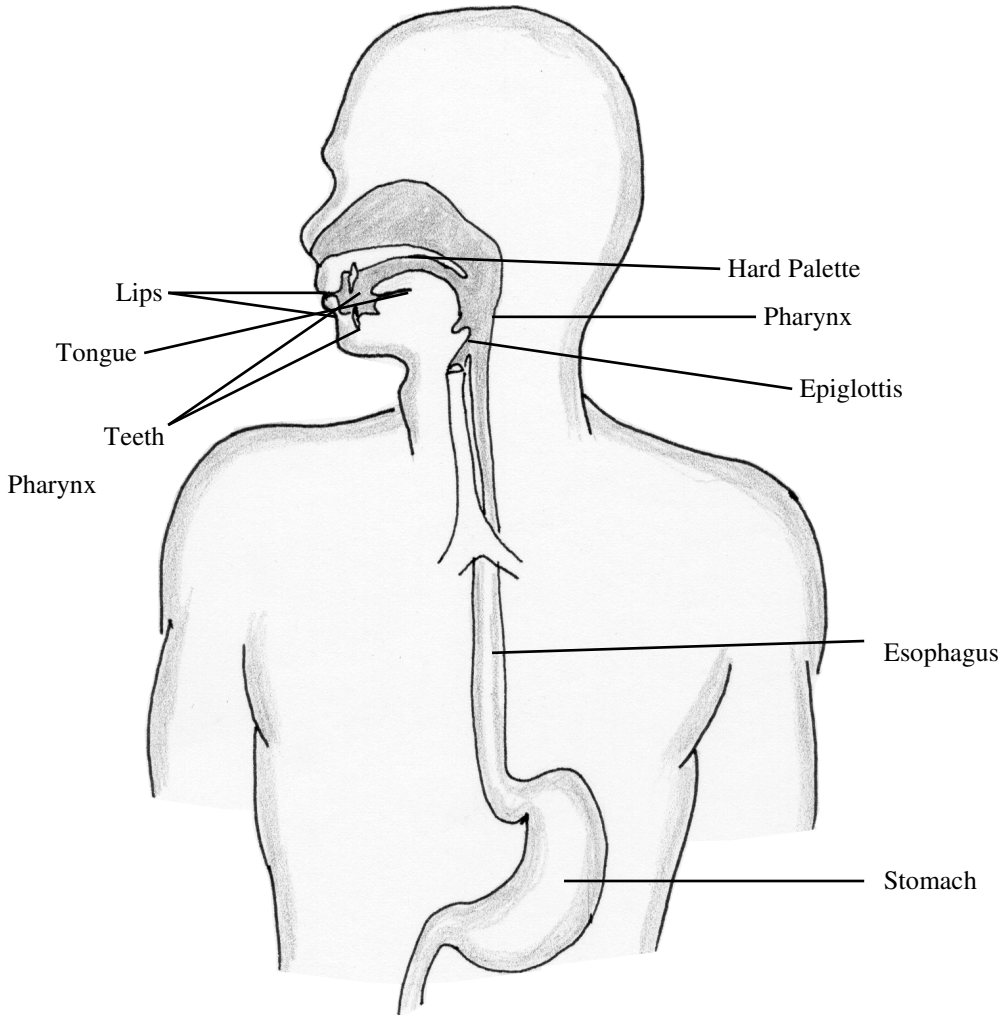
Thrombosis
A blood clot in a vein or artery.

Urinary Tract Infection (UTI)
An infection or inflammation of the bladder or urethra commonly caused by bacteria.

UPPER GASTROINTESTINAL SYSTEM



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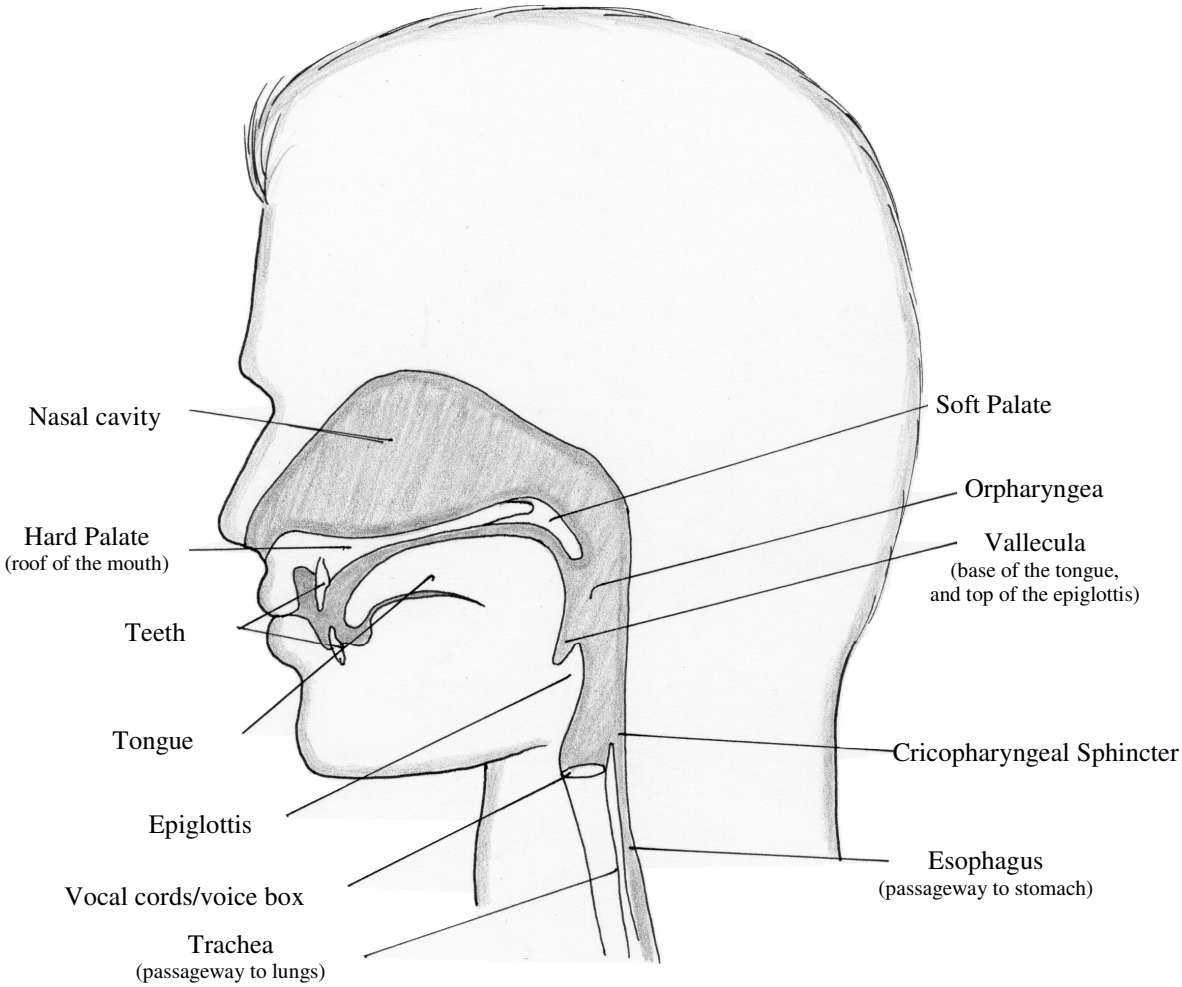
SWALLOWING MECHANISM

GENERAL INFORMATION
Physical Structures

Cross-section of the head and neck.
The structures and muscles that are used
during swallowing are identified.



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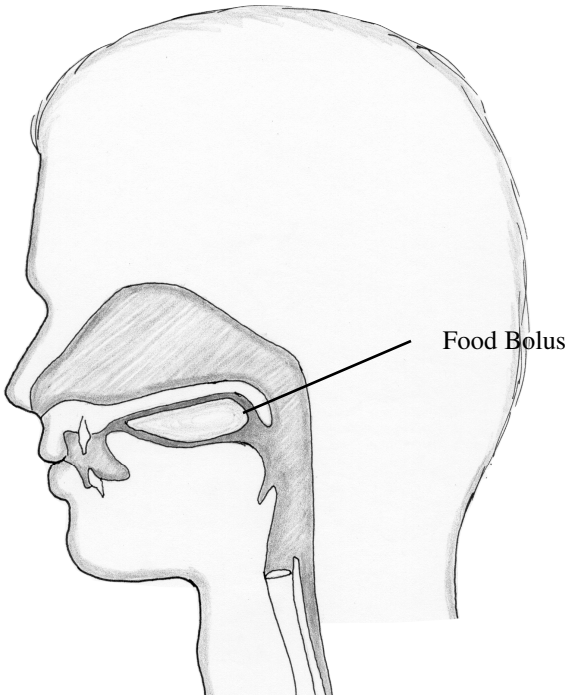
SWALLOWING MECHANISM

The 3 Stages of Swallowing

Stage 1: Oral Stage

- Oral Preparatory-Chew, moisten, and move food bolus to back 1/3 of tongue.
- The food bolus (FB) is moved back through the mouth by the tongue:



Oral phase (first stage):

Food is organized into a manageable, moist mass (bolus). The airway is open during this part of the swallow, allowing poorly managed fluid of foodstuff to trickle into the back of the throat and airway. When the tongue elevates against the hard palate, the bolus is propelled backward toward the back of the throat (oro-pharynx) in less than one second.

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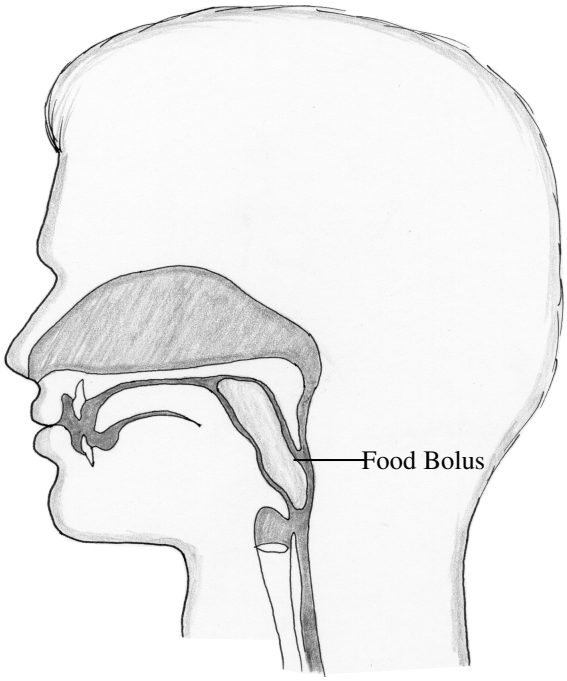
SWALLOWING MECHANISM

The 3 Stages of Swallowing

Stage 2: Pharyngeal Stage

- FB to upper throat
- Epiglottis closes off trachea
- Tongue moves back
- FB forced down into esophagus



Pharyngeal phase (second stage):

This phase begins with the initiation of the swallow reflex, which triggers elevation of the soft palate to block the nasal cavity. Elevation of the larynx occurs nearly simultaneously, causing the epiglottis to tip back to cover the airway to prevent food/ fluid from entering.

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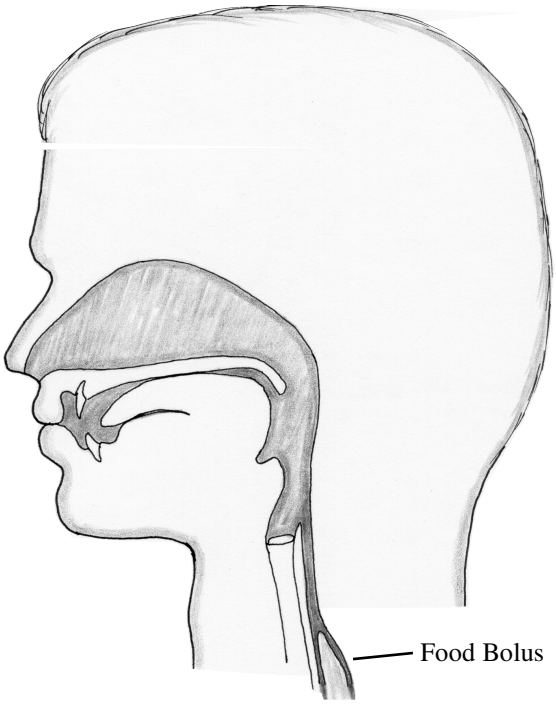
SWALLOWING MECHANISM

The 3 Stages of Swallowing

Stage 3: Esophageal Stage

- FB enters the esophagus
- FB moves into the stomach



Esophageal phase (third stage):

The passage of the bolus through the upper esophageal opening begins this stage. The bolus is propelled through the esophagus into the stomach in approximately 8-20 seconds, depending on the texture and volume of the swallowed material.

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SWALLOWING MECHANISM

Types of Swallowing Problems

The body has two primary mechanisms to prevent aspiration of foreign materials into the upper airway. A projection behind the tongue called the epiglottis tips back to close the entrance to the airway at the beginning of the second stage. Immediately following the third stage, a muscular ring right at the bottom of the esophagus constricts to prevent food from backing up the esophagus (reflux).

Neuromuscular Disorders

Individuals with damage to the parts of the brain that control movement are described as having neuromuscular disorders. Neuromuscular disorders can result in tone in the swallowing structures that is either too high or too low. It can also result in lack of coordination so that the bolus is not adequately prepared, or propelled inefficiently to the back of the throat. There may be poor or absent protective responses, such as the cough or gag reflex.

Structural Disorders

Some individuals have deviations in the way the oral structures are shaped which can cause difficulty with swallowing. These are referred to as structural disorders. There may be missing structures (such as teeth); malformed structures (such as a high arched palate) or alignment problems (such as teeth that do not meet where they should).

Sensitivity Problems

Still other individuals have either an overreaction or a less than desirable reaction to stimulus in an around the mouth. These are referred to as sensitivity problems. Some individuals have problems with certain textures. Other persons have problems with a high or low sensitivity to taste.

Individuals with neuromuscular disorders have many risk factors that increase their chances of accidental aspiration:

Oral Phase-Poor bolus management due to problems with the jaw, tongue or facial muscles. Inadequate physical management practices may hamper movement of these structures. Medications may lower tone and movement in the face and mouth.

Pharyngeal Phase-Protective responses, such as the gag or cough response may be delayed or absent. Poor head position may cause delay in movement of the epiglottis resulting in the airway remaining partly open during the second stage.

Esophageal Phase-Poor body alignment and/or certain medications that relax muscle reduce the effectiveness of the lower esophageal sphincter to keep food from backing up.

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SWALLOWING MECHANISM

WITH ALL THESE PROBLEMS WHAT CAN WE DO?

The Tools for Success

Observe, Assess, & Document

- Meal or medication refusal/texture specific refusal
- Agitation during/after medication administration
- Coughing during/after medication administration
- Drooling constantly or spurting, particularly fluids
- Pulling head back to swallow
- Requiring many swallows to clear
- Needing physical or verbal prompts to move oral parts

Physical and Nutritional Management Teams

- Specialized to provide individualized assessments
- Request when above reactions are observed

Physicians and Specialists

- Gastro-enterologists
- Speech pathologists
- Individualized, depending on the issue

Testing MBS, VFS, and UGI

- Modified Barium Swallow (MBS)
- Videofluoroscopy (VFS)
- Upper GI (UGI)

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SWALLOWING MECHANISM

ASPIRATION PNEUMONIA:

Aspiration is generally defined as the penetration of food, fluid or other foreign bodies below the vocal cords, Aspiration pneumonia is generally defined as the inflammation of the lungs due to infection following the inhaling of foreign objects, such as food or fluid. This is a leading cause of death among people with developmental disabilities

ASPIRATION

Facts About Aspiration

- Aspiration occurs when food, fluids, or other foreign bodies go into the airway and the lungs.
- An individual may have "silent" aspiration that ***may not cause obvious outward symptoms, e.g., coughing, congestion***.
- Aspiration may occur with improper positioning.
- Aspiration is the leading cause of death among individuals with developmental disabilities.
- An unsafe swallow can easily lead to food and liquid entering the airway (aspiration).
- Frequent aspiration of food, fluids or medication into the lungs can lead to:
  - ►Aspiration Pneumonia
  - ►Lung damage
  - ►Death

Causes of Aspiration

- Neuromuscular disorders – damage to parts of the brain that control movement or loss of tone in the structures that control swallowing.
- Mucous, saliva, or vomitus entering the lungs.
- Medications entering the lungs.
- **Food or liquid entering the lungs.**

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Signs of Aspiration

- Coughing, gagging, choking
- Turning red in the face or turning blue
- Difficulty breathing
- Increased secretions, e.g., the individual may have noisy or congested breathing that sounds "wet", e.g., gurgling or wheezing
- Increased temperature if there is an infection in the lungs
- Dehydration (may be caused by an increased temperature)
- Generalized distress

Ways to Prevent Aspiration

- Always properly position the individual at mealtime and at medication times
- Provide food in a texture suitable for each individual
- Allow the individual to eat at his or her own pace
- Use individual specific (properly designed) dining equipment

***Note:* Observe for and immediately report to the agency nurse any signs of aspiration.**

Swallowing Mechanism

Medication that may interfere with swallowing or cause gastro-esophageal reflux disease (GERD):

- Drugs that control seizures, such as phenobarbital and Dilantin
- Drugs that affect behavior, such as antipsychotic or psychotropic medications
- Drugs that affect muscle tone such as muscle relaxants, tranquilizers.
- Drugs that have effects on smooth muscle such as the intestine, veins (anticholinergics)

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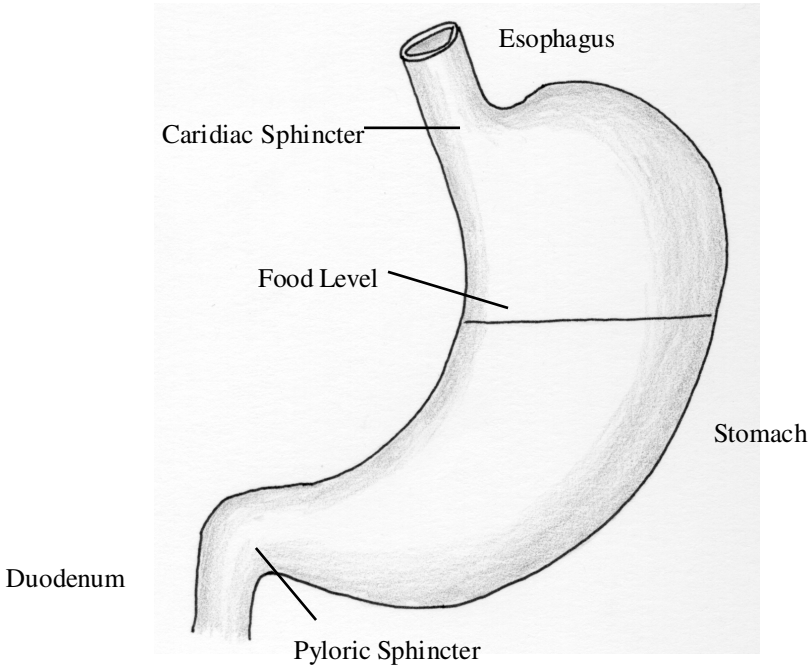
POSITIONING

- Upright or at least 45 Degrees, in sitting position, 30 degrees in sidelying.
- Body Alignment-nose, naval facing same direction.
- Head Positioning (in slight flexion-at least a handspan @ neck).
- General Comfort-relaxed-not tense.

EFFECTS OF POSITIONS ON STOMACH

Upright Position



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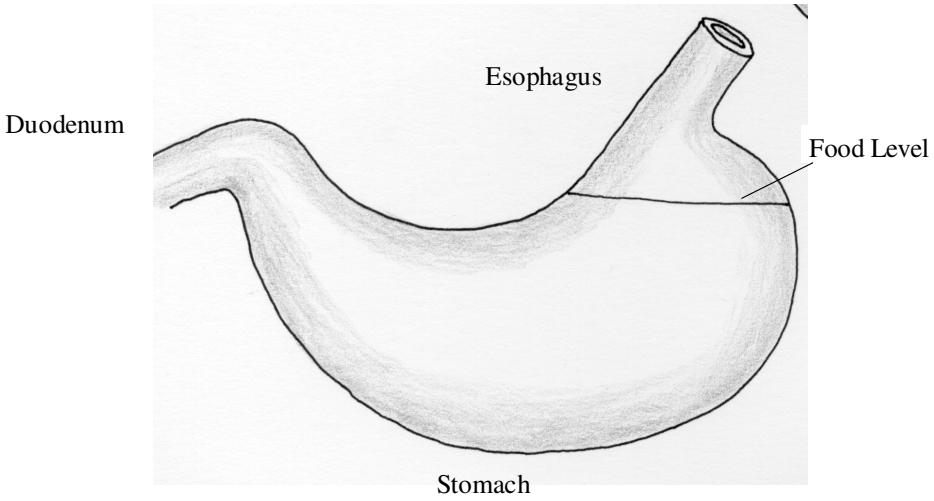
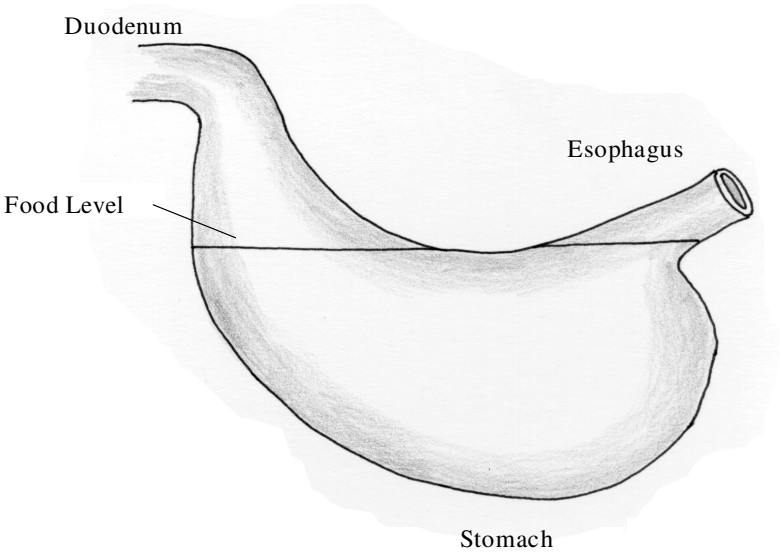
EFFECTS OF POSITIONS ON STOMACH

Reclining Position



Supine Position



POSITION INDUCED GER

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Unit Five
Practice Test

Multiple Choice (circle the correct answer)

1. This body organ produces the hormone, Insulin:

   A. Brain
   B. Kidney
   C. Liver
   D. Pancreas

2. Medication and poison detoxification take place in this organ:

   A. Liver
   B. Kidney
   C. Lungs
   D. Small Intestine

Fill in the Blanks

3. List the four causes of aspiration

   1. _____
   2. _____
   3. _____
   4. _____

4. List the seven signs of aspiration

   1. _____
   2. _____
   3. _____
   4. _____
   5. _____
   6. _____

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5. List the four ways that you can help to prevent aspiration

   1. _____

   2. _____

   3. _____

   4. _____

Matching (match the body system to its function using each letter only once).

1. ____ Moves and shapes the body.
2. ____ Provides oxygen to the cells and removes carbon dioxide.
3. ____ Sight, hearing, taste, smell and touch.
4. ____ Secretes chemicals called hormones which regulate body functions, metabolism, and reproduction.
5. ____ Takes in food and prepares it for use by the body, and excretes wastes.
6. ____ Supports and protects the body.
7. ____ Carries nutrients and oxygen to the cells through the blood: removes cell waste.
8. ____ Controls and coordinates bodily activities.
9. ____ Supports procreation
10. ____ Protects the body from harmful germs; helps control body temperature; serves an excretory function
11. ____ Removes waste from blood, produces urine, maintains water balance

A. Circulatory

B. Endocrine

C. Gastrointestinal

D. Integumentary

E. Muscular

F. Nervous

G. Reproductive

H. Respiratory

I. Sensory

J. Skeletal

K. Urinary (Excretory)

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UNIT SIX

PART ONE

ADMINISTRATION OF MEDICATION

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UNIT SIX
PART ONE

ADMINISTRATION OF MEDICATION

OBJECTIVES:

After studying this unit, the student will:

1. Understand that individuals with developmental disabilities may have unique/specific needs that require adaptations in approaches to medication administration

2. Understand and be able to describe the following medication administration procedures:
    - Oral medication administration
    - Inhalant medication administration
    - Instillation of eye medication
    - Instillation of ear medication
    - Nasal medication administration
    - Rectal medication administration
    - Topical skin medication administration
    - Vaginal medication administration

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Medication Administration Procedures

In this section of the unit, you will have the opportunity to learn the correct procedures for administering medications. You will also learn correct documentation procedures.

Students taking this course are employed in agencies that provide service to individuals with developmental disabilities. Each agency has specific policies and procedures for the administration of medications. ***The nurses at your agency will provide information and training about your agency's medication administration polices, as well as training that is specific to the needs of the individuals you will be supporting.***

Points To Remember

1. All medications, ***including over-the-counter (OTC) medications***, administered to individuals receiving services in the developmental disabilities system ***require an order*** from a licensed health care provider.

2. The medication order is transcribed from the prescription form or the Continuity of Care form onto the Medication Administration Record (MAR).

Note: ***Direct Support Staff who have received additional training from their agency nurse may be permitted to copy a new written medication order from the pharmacy prescription label onto an appropriate documentation form according to the agency's policy and procedure.***

3. The MAR is used in preparing and administering the medications. The MAR should contain the following information:
   - the individual's full name
   - the name of the medication ordered
   - the dosage of the medication
   - the hours to be administered
   - the route of administration
   - any specific directions necessary for the medication administration
   - the date the medication was ordered
   - the date the medication should be discontinued, if applicable

In addition, the MAR has a place to sign initials after every medication administration along with an area for the complete signature of the person giving the medication. The MAR remains with the medication until it has been administered. The MAR is used for documenting the medication after it has been administered.

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4. The MAR should be kept in a place where it is readily available. The documentation should be done ***immediately after*** the individual takes the medication. ***Never document that a medication was taken before actually administering it to the individual.***

5. The medications are dispensed by the pharmacy and must remain in the original container with the following information on the label.
    - the individual's name
    - the medication name
    - the medication route
    - the strength/dosage of medication
    - the prescription number
    - the quantity issued
    - the expiration date
    - the pharmacy name, address and phone number
    - the date the medication was dispensed

6. All medications should be stored in a locked cabinet or drawer. ***Always follow your agency's policy for the proper storage of medications.***

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Guidelines For Administration of Medications

1. Administer medications only upon written orders from a licensed health care provider.

2. The Direct Support Staff person administering the medications has the responsibility to know the medication's intended use, the purpose for which it is being given, how to access information about possible side effects, any warnings or directions of a specific nature concerning the medication, and the usual dose.

3. It is the responsibility of the Direct Support Staff person administering medications to be familiar with the specific needs of the individual, e.g., allergies to certain medications, ability to swallow.

4. The following items are important responsibilities for Nurses and Direct Support Staff. ***Medications should always be administered according to these "Six Rights"***:

   - **The Right *Individual***
   - **The Right *Time***
   - **The Right *Medication***
   - **The Right *Dose***
   - **The Right *Route***
   - **The Right *Documentation***

5. Avoid distractions.

6. The individual receiving the medication should be told about the purpose of the medication and expected effects.

7. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

8. ***Read the label of the medication container carefully, checking to see that the label and the MAR read exactly the same. The label on the medication container should be read three times as follows:***
   - When the container is taken from the individual's supply ***(before you pour)***
   - When the medication is removed from the container ***(as you pour)***
   - When the container is returned to the individual's supply ***(after you pour but <u>before</u> you administer)***

9. Never take medication from an unmarked or soiled container, or a container with a label that is not readable.

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10. Keep all containers tightly closed to prevent any changes to the medication from occurring. Any change in color, consistency, or odor of medication should be reported to the agency nurse or supervisor.

11. When administering medication to an individual, ***always verify that he/she is the correct individual***.

12. Give the medication at the time it is ordered and remain with the individual until the medication is taken. ***Medications must be administered at the prescribed time***. The window of time is one-half hour before or one-half hour after the prescribed time.

13. Provide privacy during medication administration when it is indicated, e.g., rectal medications.

14. Medications that have been prepared and not given to the individual for any reason, e.g., refusal, absence, etc., should be discarded according to the agency's policy and procedure. ***Never return medications to their container.***

15. All Direct Support Staff must be aware of the additional responsibilities concerned with their administration of controlled substances according to agency policies and procedures.

16. If the individual refuses the medication, follow the instructions in the nursing plan of care regarding the number of additional attempts that should be made within a designated time frame before recording the medication as refused. Refused medication must be reported to the agency nurse or supervisor according to your agency's policy. ***Refused medication should always be recorded on the MAR.***

17. Standard Precautions should always be followed when administering medication.

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Standard Precautions

What Are Standard Precautions?

Standard Precautions are designed to protect oneself if the possibility of contact with an individual's blood or body fluids exists. Standard Precautions are intended to supplement rather than replace recommendations for routine infection control, such as hand washing and using gloves to prevent microbial contamination of hands.

How Are Standard Precautions Put Into Practice?

1. Prevent injuries when using needles, lancets and other sharp instruments by implementation of the following:
   - Use the safest needles available, e.g., self-capping, retracting.
   - Do not recap needles by hand.
   - Do not bend, break, or manipulate used needles by hand.
   - Place all used, disposable syringes and needles and other sharp items in a clearly marked, puncture-resistant ***"Sharps Container"*** for disposal.
   - Locate the puncture-resistant ***Sharps Container*** as close to the area of use as practical.

Note: Direct Support Staff are not permitted to administer injectable medications. You may be supporting individuals who self-inject their medication and need assistance with proper disposal of used needles. If you will be providing this type of assistance, the nurse at your agency will provide specific training as to the agency's procedure for proper disposal.

2. Protective barriers can prevent or reduce incidence of exposure to blood and other body fluids. The type of protective barrier should be appropriate for the procedure performed and the type of exposure anticipated.

3. **Use gloves when contact with blood or** other body fluids is anticipated, such as:
   - Assisting the individual with bathing
   - Giving mouth care, e.g., tooth brushing
   - Handling laundry soiled with blood or body fluids
   - Obtaining a specimen, e.g., urine, stool, blood
   - Changing a bandage or dressing a wound
   - Providing skin care, e.g., shaving, application of topical ointments to skin lesions
   - Treating cuts, bites, nose bleeds, burns or bee stings
   - Cleaning vomitus

4. Change gloves and wash hands between individual contacts.

5. Do not wash or disinfect gloves for reuse.

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6. Replace torn or punctured gloves immediately.

7. Cover cuts, rashes, or other breaks in your skin with bandages and gloves.

8. Use general-purpose heavy-duty gloves (like the kind used for washing dishes) for cleaning instruments or areas involving blood/body fluid contact.

9. The most effective method to prevent and control the spread of disease is proper hand washing. The procedure for proper hand washing is as follows:
   - Remove and secure rings.
   - Use continuously running warm water.
   - Wet hands and apply soap.
   - Scrub vigorously all surfaces of the hands, including back of hands and between fingers, for at least 15 seconds.
   - Rinse thoroughly.
   - Dry well with a paper towel.
   - Use the paper towel to turn off faucet.
   - Discard paper towel in the trash can.

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Approaches To Medication Administration For Individuals With Developmental Disabilities

Medication administration approaches should be designed to focus on the specific needs of the individual. Such things as the individual's functional movement, ability to swallow, and what texture is easiest for the individual to manage should be incorporated into the approach.

It is important to be respectful of the individual's dignity, personal space, and right to have as much control as possible over this process, such as choosing whether the medication is presented whole or crushed (if the medication is one that may be crushed), or choosing the medium, e.g., applesauce or other food, as long as there is no food-drug interaction (dietary restrictions should be considered when offering choices).

Note: These choices and preferences will be incorporated into the nursing plan of care and recorded on the MAR by the agency nurse. If such instructions are not noted on the MAR, ALWAYS check with the agency nurse before crushing a medication or administering the medication in food.

When a medication is refused, report the refusal to the agency nurse according to your agency's policy and procedure. It is also important to report your observations to the nurse if you have noticed any particular reasons why the individual may be refusing the medication, e.g., the individual does not like the taste or smell of the medication; the individual tells you that the medication makes him/her feel nauseous.

Communication

Some individuals with developmental disabilities use alternate forms of communication such as gestures, sign language, facial expressions, communication boards, or computers. Some individuals express pain or illness through their behavior. It is important to learn the specific and unique communication styles of the individuals you will be supporting. ***Staff at your agency will provide information and training about the specific communication styles of the individuals you will be supporting.***

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Safety In The Skill Of Administering Medication

Action	Rationale
1. Medication, dose, time, and route must be ordered by a licensed health care provider.	1. Prescribing is the function of the licensed health care provider.
2. Medication order must be in writing on the MAR and state the individual's name, the medication name, dosage, route, and time (texture and position, as indicated).	2. Written documentation provides for the individual's safety.
3. Following the principle aspects of Standard Precautions, steps for proper hand washing techniques, before and after administering medications.	3. Good infection control technique.
4. Prepare medications in a quiet place with limited distractions.	4. Limiting noise and distractions will help you to concentrate and decrease the chance of error.
5. Prepare the medication using the MAR.	5. MAR is used to verify that you are preparing the correct medication for the correct individual at the correct time.
6. Compare the label to the MAR 3 times when preparing medications: • Upon taking container from supply (before) • When preparing (during) When replacing container to supply (after)	6. Triple check assures accuracy in administering.
7. Never give a medication unless the label is present and clearly readable.	7. Prevents medication errors.
8. Do not touch pills or capsules.	8. Good infection control technique.
9. Always use calibrated measuring spoons and other approved utensils.	9. Using calibrated spoons and other approved utensils ensures that you are giving the correct dose of medication.
10. Pour liquids away from label side of bottle.	10. Prevents messy, unreadable label.
11. Place the medicine cup or glass on a ***level surface*** and pour liquid medication at eye level; lowest part of the meniscus is correct level.	11. Looking down at the medicine cup or glass gives an inaccurate reading.
12. Do not pour liquid medications until ready to give.	12. Medication may deteriorate or evaporate.
13. Do not mix pills and liquid meds together.	13. One may precipitate the other; there may be unpredictable interactions.
14. Shake liquid suspensions vigorously before giving.	14. Medication settles to the bottom; it should be evenly distributed.

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Safety In The Skill Of Administering Medication (Continued)

15. Always check the individual's identification according to your agency's policy.	15. The individual may not be able to communicate his/her name or may respond to the wrong name.
16. Give only those medications that you have prepared yourself.	16. **You Are Responsible for Your Own Actions!!**
17. Do not leave medications unattended.	17. Individuals may stockpile medications; take them at the wrong time or not at all; or take someone else's medication.
18. Stay with the individual until he/she has swallowed the medications.	18. Ensures that the individual has taken the medication; has not had difficulty swallowing; etc.
19. Document only the medications that you give.	19. **You Are Responsible for Your Own Actions!**
20. Make sure that the medication preparation you are using can be given by that route.	20. Using the wrong route may injure the individual.
21. If you make a medication error, ensure the individual's safety, report the error to the appropriate agency personnel, and then fill out the agency's medication error/omission form. Errors include wrong medication, wrong individual, wrong dosage, wrong time, wrong route, and wrong documentation.	21. You are in a better position if you can show that you promptly recognized the error, and that you took action to remedy it. ***This is not punishment!***
22. Relax but avoid overconfidence!	22. Tension and anxiety cause mistakes.
23. Observe the individual's response to the medication.	23. You should be aware of: • The intended effect of the medication • Possible side effects • Documented allergy to the medication
24. Document your observations about the individual's response to the medication; ***document and report any adverse responses***.	24. Appropriate documentation helps to provide the best possible support to the individual as it lets other staff members know what is happening. Appropriate documentation also helps to prevent mistakes from occurring.
25. Store all medication safely and securely. Controlled substances are required to be stored in double locked cabinets or drawers.	25. Provides accountability and safety.

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Administering Oral Medications

Equipment:

- Medication tray, as applicable
- Medication Administration Record (MAR)
- Medication ordered
- Medicine cup
- Any measuring utensils necessary

1. ***Handle tablets and capsules in such a way that your fingers do not come in contact with them***. Use the cap of the container to drop the tablet into the medicine cup. Verify that medication is not out-dated.

2. ***When preparing liquid medications. READ THE LABEL DIRECTIONS, and then follow these steps***:
   - Check to see that the cap of the bottle is on securely.
   - If the medication is in the form of a suspension or emulsion shake the bottle vigorously to mix its contents.
   - Remove the cap and place it topside down on the table.
   - When pouring liquid medications, hold the bottle with the label in the palm of the hand to avoid soiling it.
   - Place the graduated medicine cup or glass on a level surface and pour the medication at eye level; the lowest part of the meniscus is the correct level.
   - Wipe the lip of the bottle with a moist piece of clean paper towel or gauze before recapping it. Recap the medication bottle securely.

3. Many individuals have a great deal of difficulty in swallowing medications, especially tablets and capsules of large sizes. The following techniques may be helpful in gaining the individual 's cooperation as well as enabling him/her to take all of the medications (***if the individual has a specific swallowing/positioning plan, it should always be followed. The Direct Support Staff person administering medication shall receive competency based, individualized, specific training if such a plan is in place***).

   - Always ensure that the individual is in a safe and proper position before administering medications. ***NEVER administer medication to an individual who is lying flat.***

   - Encourage sips of water before administering medication and after each tablet or capsule. Use a drinking straw, if applicable.

   - Allow the individual to rest a minute or two after each tablet. This often quiets the cough reflex and enables the individual to take all the medications. Patience and allowing sufficient time to take the medication and the water are the keynotes to success.

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- Give liquid medicine slowly (1 to 2 teaspoons should be given in several sips); follow with sips of water, as instructed by the agency nurse.

- A tablet or capsule may be swallowed easily if given in a teaspoon of pudding or applesauce, as instructed by the agency nurse.

- If the individual has difficulty in swallowing tablets or capsules, advise the agency nurse to determine if the medications may be crushed or may be taken in a different form. ***Never crush or change the medication form unless you receive specific instructions to do so from the agency nurse.***

Procedure For The Administration of Oral Medications

1. Select the correct MAR for the individual who will be receiving the medications.

2. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

3. Wash your hands using the proper technique.

4. Starting with the first page of the MAR, check each page for medications due for the time frame in which you are administering the medication. One by one, and in the order in which they appear, ***carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

The comparison of the medication label and the MAR should be done three times <u>for each and every medication</u> in the following manner:

- When the container is taken from the individual's supply ***(before you pour)***
- When the medication is removed from the container ***(as you pour)***
- When the container is returned to the individual's supply ***(after you pour but <u>before</u> you administer).***

<u>After pouring all of the medications due for the individual for the specific time frame, go back and check all of the MAR sheets for that individual to ensure that you did not miss any of the medications.</u>

5. When preparing solid forms from the bottle (tablets, capsules, etc.) place the number of tablets in the lid or cap of the bottle and then into the medicine cup. ***If it is necessary to break a scored tablet, the agency nurse will instruct you according to the agency's policy and procedure.***

6. Place the prepared medicine on the medicine cart or tray, as applicable.

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7. Identify the individual before administering the medication.

8. Explain the procedure to the individual.

9. Administer the medication.

10. Remain with the individual until the medication has been swallowed

11. Document any unusual reactions or symptoms before or following the administration of the medication. Immediately report your observations to the agency nurse or supervisor and then document these observations. ***When in doubt about any reaction or symptom, <u>or if something just doesn't seem right</u>, contact the agency nurse for assistance!***

12. ***Wash your hands*** using proper technique.

14. Document that the medication has been administered and that the individual has taken the medication.

15. Clean and replace the equipment that has been used.

16. ***If the medication that you have administered is a "PRN" medication given for a specific reason,*** observe the individual within 20 minutes (or the prescribed length of time) to check for relief of pain, sleeplessness, etc., and to see if the desired results have been achieved. Observe and document these results.

Points to Remember

1. ***A sublingual medication should not be chewed or swallowed***. It is placed under the tongue where it must be retained until it is dissolved and absorbed. Be sure that the individual understands the medication is not to be swallowed whole. If several medications are being given, ***give the sublingual medication last and DO NOT GIVE ANY LIQUID.***

2. ***A troche or lozenge should not be chewed or swallowed***. It should be dissolved on the tongue and is commonly used for the treatment of a sore throat. The individual must be instructed that drinking liquids should be avoided when troches or lozenges are in the mouth because the resulting dilution and washing away of the medication will destroy the effect.

3. ***A spray or gargle is applied topically to the oral cavity***. Instruct the individual that drinking liquids should be avoided for a specific time period after applying the medication because the effect of the medication would be destroyed. If several medications are being given, ***give this medication last and DO NOT GIVE ANY LIQUID.***

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Documentation

Document on the individual's MAR. The MAR information includes:

1. the medication given
2. the dosage given
3. the method of administration, e.g., oral or sublingual
4. the exact time administered
5. the signature of the person administering the medication, or initials if a complete signature is recorded on the MAR

Procedure For The Administration Of Topical Medications

The medications discussed in this section will be applied to the following sites:

- ***Skin***: Ointments, lotions, liniments, aerosols, tinctures
- ***Throat:*** Gargles, sprays (see oral medications)
- ***Eye:*** Drops and ointments
- ***Ear:*** Drops

1. Ointment/ Lotion/ Liniment/ Aerosol/ Tinctures Equipment:

- Medication tray, as applicable
- Medication MAR
- Medication ordered
- Applicator for removal from container and/or application of medication

***Note:* If sterile technique is required, a licensed nurse will perform this procedure. For example; sterile technique would be used for deep and/or penetrating wounds, wounds that require packing, second degree burns.**

1. Select the correct MAR for the individual who will be receiving the medications.

2. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

3. Wash your hands using the proper technique. ***Wear gloves!***

4. ***Carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

The comparison of the medication label and the MAR should be done three times for each and every medication in the following manner:

- When the container is taken from the individual's supply ***(before you prepare)***

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- When the medication is removed from the container ***(as you prepare)***
- When the container is returned to the individual's supply ***(after you prepare but <u>before</u> you administer).***

5. Keep labeled container of medication with the MAR.

6. Identify the individual before administering the medication.

7. Explain the procedure to the individual. Position the individual so the area to be medicated is exposed. Provide privacy as indicated.

8. Note any significant observations or complaints regarding the affected area before medication application and any unusual reactions or symptoms following the medication application. Immediately report your observations to the agency nurse or supervisor and then document these observations. ***When in doubt about any reaction or symptom, <u>or if something just doesn't seem right</u>, contact the agency nurse for assistance!***

9. Cleanse the area if indicated. Clean from "dirty to clean" in only one direction, one time, to avoid cross contamination of the area. If required, use a clean wipe for each area cleansed.

10. Remove cover from the medication, checking again that the label on the medication corresponds with the medication ordered on the MAR.

11. Apply correct medication in the following manner:
    - Remove wrapping from applicator (tongue blade, disposable spoon, etc.) and take out correct amount from container. Do not "double dip" applicator ***("double dipping" means dipping the applicator back into the container <u>after</u> applying medication to the affected area. <u>NEVER</u> "double dip").***
    - Spread medication on affected area (may apply medication from tongue blade onto gauze, tissue, cotton tipped swab, etc.).
    - ***Do not let tip of container touch affected area***.
    - If approved by the agency nurse, using gloves, remove correct amount from container and spread on affected area (double gloving may be necessary).

12. Remove excess with tissue if indicated.

13. Apply bandage or dressing if indicated by the agency nurse.

14. Leave the individual in a comfortable position.

15. Remove your gloves and ***wash your hands***, using proper technique.

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16. Document that the medication has been administered.

17. Wear gloves to clean and replace the equipment.

18. If the topical medication has been applied for a specific purpose, observe the individual within the prescribed time period to see if the desired results have been achieved. Document the results.

Documentation

Document on the individual's MAR. The MAR information includes:
1. the medication given
2. the area onto which the medication was applied
3. the exact time administered
4. the signature of the person administering the medication, or initials if a complete signature is recorded on the MAR.

2. Eye Ointment/Drops Equipment:

- Medication tray, as applicable
- Medication MAR
- Medication ordered
- Cotton balls

1. Select the correct MAR for the individual who will be receiving the medications.

2. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

3. Wash your hands using the proper technique. ***Wear gloves!***

4. ***Carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

The comparison of the medication label and the MAR should be done three times <u>for each and every medication</u> in the following manner:

- When the container is taken from the individual's supply ***(before you prepare)***
- When the medication is removed from the container ***(as you prepare)***
- When the container is returned to the individual's supply ***(after you prepare but <u>before</u> you administer).***

5. Keep labeled tube of eye ointment, or eye drops with the MAR.

6. Identify the individual before administering the medication.

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7. Explain the procedure to the individual.

8. Cleanse the eye according to the instructions outlined in the individual's nursing plan of care.

9. Note any significant observations or complaints regarding the affected eye before medication application and any unusual reactions or symptoms following the medication application. Immediately report your observations to the agency nurse or supervisor and then document these observations. ***When in doubt about any reaction or symptom, <u>or if something just doesn't seem right</u>, contact the agency nurse for assistance!***

10. Shake the medication if indicated in the MAR. Remove cover from the medication, checking again that the label on the medication corresponds with the medication ordered on the MAR.

11. Position the individual with his/her head back and looking upward. Retract lower lid. Gently draw lower lid to be medicated down with forefinger, steady your hand on the cheek if necessary. ***<u>ALWAYS</u> follow the specific instructions outlined in the individual's nursing plan of care.***
    - Approach the eye from below, outside the individual's field of vision, with due care to avoid contact with the eye.
    - Apply the ointment in a thin layer along inside of lower lid. ***Do not touch tip to lid***.
    - Break off ribbon of ointment from tube by releasing pressure and removing tube. ***Do not use your fingers***.
    - Use the same method for opening the eye to apply drops. Apply drops gently near the center of lower lid not allowing drops to fall more than one inch before striking eye. Gently draw lid down with forefinger, steady hand on forehead and hold dropper.
    - ***Avoid contact with the eye***.

12. Hold lid open for a few seconds.

13. Allow eyes to close gently. Ask the individual to keep eyes closed for a few seconds. ***Gently*** wipe away any excess ointment from the skin.

14. Leave the individual in a comfortable position.

15. Remove your gloves and ***wash your hands***, using proper technique.

16. Document that the medication has been administered.

17. Wear gloves to clean and replace equipment.

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18. If the eye medication has been applied for a specific purpose, observe the individual within the prescribed period of time to see if the desired results have been achieved. Document the results.

Documentation

Document on the individual's MAR. The MAR information includes:

1. the medication given
2. the eye(s) to which the medication was applied
3. the exact time administered
4. the signature of the person administering the medication, or initials if a complete signature is recorded on the MAR

3. Ear Drops/Equipment

- Medication tray, as applicable
- Medication MAR
- Medication ordered
- Dropper, if not included in bottle
- Cotton balls

1. Select the correct MAR for the individual who will be receiving the medications.

2. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

3. Wash your hands using the proper technique. ***Wear gloves!***

4. ***Carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

The comparison of the medication label and the MAR should be done three times <u>for each and every medication</u> in the following manner:

- When the container is taken from the individual's supply ***(before you prepare)***
- When the medication is removed from the container ***(as you prepare)***
- When the container is returned to the individual's supply ***(after you prepare but <u>before</u> you administer).***

5. Keep the ear medication with the MAR.

6. Identify the individual before administering the medication.

7. Explain the procedure to the individual.

8. If the ear medication requires but does not have a dropper, include a sterile dropper.

Note: Never insert a Q-tip or cotton-tipped swab into the ear!

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9. Position the individual as instructed in the nursing plan of care, for example;
   - If lying in bed, have the bed flat and assist the individual to turn his/her head to the opposite side.
   - If sitting in chair, assist the individual to tilt his/her head sideways until the ear is as horizontal as possible.

10. Clean entry to ear canal with clean cotton ball according to the instructions in the individual's nursing plan of care.

11. Note any significant observations or complaints regarding the affected area before medication application and any unusual reactions or symptoms following the medication application. Immediately report your observations to the agency nurse or supervisor and then document these observations. ***When in doubt about any reaction or symptom, <u>or if something just doesn't seem right</u>, contact the agency nurse for assistance!***

12. Shake the medication if indicated on the MAR. Draw up the medication into the dropper, checking again to see that the label on the medication container reads the same as the MAR.

13. Administer the eardrops by pulling the ear gently backward and upward (for an adult) and instill number of drops ordered into ear canal. ***Do not touch any part of the ear canal with the dropper to prevent contaminating the dropper and/or injuring the individual***.

14. If indicated in the individual's nursing plan of care, place a clean cotton ball loosely in the ear provided the individual does not have PICA behavior. ***Remove the cotton ball after 5 –10 minutes.***

15. Have the individual maintain the required position according to the instructions in the individual's nursing plan of care.

16. If drops are to be instilled in both ears, wait at least five minutes before putting drops in second ear, then repeat the procedure as instructed.

17. Leave person in a comfortable position.

18. Remove your gloves and ***wash your hands***, using proper techniques.

19. Document that the medication has been administered.

20. Wear gloves to clean and replace equipment.

21. If the eardrops have been instilled for a specific purpose, observe the individual within the prescribed period of time to see if the desired results have been achieved. Document the results.

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Documentation

Document on the individual's MAR. The MAR information includes:
1. the medication given
2. the number of drops instilled
3. the ear(s) into which the medication was instilled
4. the exact time administered
5. the signature of the person administering the medication, or initials if a complete signature is recorded on the MAR.

4. Nasal Medication/Equipment

- Medication tray, as applicable
- Medication Administration Record (MAR)
- Medication ordered
- Dropper, if not included in bottle

1. Select the correct MAR for the individual who will be receiving the medications.

2. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

3. Wash your hands using the proper technique. ***Wear gloves!***

4. ***Carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

The comparison of the medication label and the MAR should be done three times <u>for each and every medication</u> in the following manner:
- When the container is taken from the individual's supply ***(before you prepare)***
- When the medication is removed from the container ***(as you prepare)***
- When the container is returned to the individual's supply ***(after you prepare but <u>before</u> you administer)***

5. Keep the nasal medication with the MAR.

6. If the nasal medication requires but does not have a dropper, include a sterile dropper.

7. Identify the individual before administering the medication.

8. Explain the procedure to the individual.

9. Position the individual in a sitting position with head tilted backward, or to the side if the medication needs to reach one or the other sinuses. If the individual is unable to sit, place a rolled towel or pillow beneath the neck.

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10. Shake the medication and remove the cap from the nasal medication.

11. ***Drop Form***:
    - Aim the tip of the dropper toward the nasal passage and squeeze the rubber portion of the cap to administer the number of prescribed drops. Instruct the individual to breathe through the mouth as the drops are instilled.

12. ***Spray Form:***
    - Place the tip of the container just inside the nostril. Block the opposite nostril. Instruct the individual to inhale as the container is squeezed. Repeat in the opposite nostril as required.

13. Advise the individual to remain in position for approximately 5 minutes. Remind the individual not to blow his/her nose for approximately 10 minutes after the medication has been administered.

14. Remove your gloves and ***wash your hands***, using proper technique.

15. Document the administration of nasal medication on the MAR.

16. Wear gloves to clean and recap the container.

Documentation

Document on the individual's MAR. The MAR information includes:
1. the medication given
2. the number of drops or sprays instilled
3. the nostril(s) into which the medication was instilled
4. the exact time administered
5. the signature of the person administering the medication, or initials if a complete signature is recorded on the MAR

5. Inhalant Medication/Equipment:

- Medication tray, as applicable.
- MAR
- Medication ordered

1. Select the correct MAR for the individual who will be receiving the medications.

2. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

3. Wash your hands using the proper technique. ***Wear gloves!***

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4. ***Carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

The comparison of the medication label and the MAR should be done three times <u>for each and every medication</u> in the following manner:

- When the container is taken from the individual's supply ***(before you prepare)***
- When the medication is removed from the container ***(as you prepare)***
- When the container is returned to the individual's supply ***(after you prepare but <u>before</u> you administer)***

5. Keep the inhalant medication with the MAR.

7. Identify the individual before administering the medication.

8. Explain the procedure to the individual.

9. Ask the individual to cough before you administer the medication (***coughing helps to clear the lungs***).

10. Attach the stem of the canister into the hole of the mouthpiece so that the inhaler looks like an "L".

11. Shake the canister to distribute the medication within the pressurized chamber.

12. Instruct the individual to slowly exhale through pursed lips.

13. Instruct the individual to seal his/her lips around the mouthpiece.

14. Compress the canister between the thumb and fingers and instruct the individual to inhale at the same time.

15. Release pressure on the canister. However, instruct the individual to continue inhaling as much as possible.

16. Withdraw the mouthpiece.

17. Instruct the individual to hold his/her breath ***for a few seconds***.

18. Instruct the individual to exhale slowly, again through pursed lips.

19. Remove your gloves and ***wash your hands***, using proper technique.

20. Document the administration of the inhalant medication on the MAR.

21. If applicable, disassemble the stem from the canister.

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***Note:* If more than one medication is used or more than one puff is to be given, carefully follow the instructions on the MAR. Some medications require the mouth to be rinsed after use to prevent mouth sores**.

Documentation

Document on the individual's MAR. The MAR information includes:
1. the medication given
2. the amount of medication inhaled (number of puffs)
3. the exact time administered
4. the signature of the person administering the medication, or initials if a complete signature is recorded on the MAR.

6. Vaginal Medications/Equipment

- Medication tray, as applicable
- MAR
- Suppository or tablet in a medicine cup
- Applicator if needed
- Gloves
- Water-soluble lubricant, as applicable
- Tissue wipes

***Note:* If you will be administering vaginal medications, the nurse at your agency will provide additional training specific to the needs of the individual(s). This section has been included for informational purposes.**

1. Select the correct MAR for the individual who will be receiving the medications.

2. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

3. Wash your hands using the proper technique. ***Wear gloves!***

4. ***Carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

The comparison of the medication label and the MAR should be done three times for each and every medication in the following manner:
- When the container is taken from the individual's supply ***(before you prepare)***
- When the medication is removed from the container ***(as you prepare)***
- When the container is returned to the individual's supply ***(after you prepare but before you administer).***

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5. Keep the vaginal medication with the MAR.

6. Identify the individual before administering the medication.

7. Explain the procedure to the individual.

8. If possible, plan to instill vaginal medication before the individual retires for sleep to facilitate retention of the medication for a prolonged period of time.

9. Have the individual empty her bladder just before inserting the medication. Assist the individual with proper hygiene before administration, if indicated in the nursing plan of care.

10. Prepare vaginal cream, tablet or suppository for delivery following directions on the label. Set up necessary equipment. Remove suppository or tablet from wrapper or uncap cream, insert suppository (cream into applicator); lubricate tip, as necessary.

11. Provide privacy and reassurance.

12. Position the individual on her back with knees bent and legs spread apart.

13. Encourage the individual to relax by instructing her to breathe through her mouth or take deep breaths.

14. Separate the labia and ***gently*** insert the applicator into the vagina to the length indicated on the MAR (usually 2 to 4 inches). ***Never force the applicator into the vagina. If the individual is anxious and tense encourage her to continue to deep breath and relax her muscles.***

15. Depress the plunger to insert the medication.

16. Remove the applicator and place it on a clean tissue; discard the applicator if it is disposable.

17. Apply a sanitary pad, as necessary.

18. Have the individual remain lying down for the length of time indicated on the MAR or in the nursing plan of care.

19. Recap the container and replace where medications are stored.

20. Remove your gloves and ***wash your hands***, using proper technique.

21. Document the administration of vaginal medication on the MAR.

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22. Wear gloves to wash a reusable applicator according to manufacture instructions, using clean technique.

Documentation

Document on the individual's MAR. The MAR information includes:
1. the medication given
2. the dosage or form administered
3. the exact time administered
4. the signature of the person administering the medication, or initials if a complete signature is recorded on the MAR

7. Rectal Medications (Suppositories/Ointments)/Equipment:

- Medication tray, as applicable
- MAR
- Suppository, ointment, or fleet's type enema
- Gloves
- Water-soluble lubricant
- Tissue wipes
- Chux, if applicable

***Note:* If you will be administering rectal medications, the nurse at your agency will provide additional training specific to the needs of the individual(s). This section has been included for informational purposes.**

Types of Medications and Purpose:

- **Glycerin/ Fleet's type enema** - to stimulate a bowel movement. There is a pattern of smooth muscle contractions that happen in the bowel that is necessary for a bowel movement to occur. This pattern of muscle contractions is called ***peristalsis***.
- **Astringent** - to contract tissue, to curb bleeding and secretions and to relieve pain.
- **Anodyne or local sedative** - to slow down peristalsis and to relieve pain.
- **For Systemic Effect** - when medication cannot effectively be given by mouth, e.g., Compazine (for nausea).

1. Select the correct MAR for the individual who will be receiving the medications.

2. ***Read the MAR carefully!*** If the information is not clear, ***contact the agency nurse or supervisor for assistance. When in doubt, ask for help!***

3. Wash your hands using the proper technique. ***Wear gloves!***

4. ***Carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

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The comparison of the medication label and the MAR should be done for each and every medication in the following manner:

- When the container is taken from the individual's supply ***(before you prepare)***
- When the medication is removed from the container ***(as you prepare)***
- When the container is returned to the individual's supply ***(after you prepare but before you administer)***

5. Keep the rectal medication with the MAR.

6. Identify the individual before administering the medication.

7. Explain the procedure to the individual.

8. Provide privacy and assist the individual with proper hygiene of the rectal area before administration.

9. Prepare the location of the administration since this type of medication may result in soiling of the area. Make certain the individual has clear access to the bathroom facilities.

10. Squeeze or place lubricant into paper cup if needed. Open suppository foil and dip the suppository into the lubricant. Lubricate the tip of the suppository with lubricant, unless it is a non-lubricated suppository (***always check the MAR for instructions***).

11. Have the individual turn on his/her side (preferably the left side with the left knee bent).

12. ***Gently*** insert the suppository, ointment, or Fleet's type enema into the rectum pushing ***gently*** with your gloved forefinger. Encourage the individual to relax by breathing through his/her mouth.

13. Note any unusual reactions or symptoms following the insertion of the suppository. ***Report and document according to your agency's policy***.

14. Have the individual remain in a comfortable position for the prescribed amount of time.

15. Remove gloves and ***wash your hands***, using proper technique.

16. After the suppository or Fleet's enema has been administered, stay with the individual until the desired results have been achieved.

17. Document that the medication has been administered.

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18. Document the results on the appropriate documentation form, e.g., progress note, bowel chart.

19. Wear gloves to clean and replace equipment.

Documentation

Document on the individual's MAR. The MAR information includes:
1. the medication given
2. the dosage or form administered
3. the exact time administered
4. the signature of the person administering the medication, or initials if a complete signature is recorded on the MAR.

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UNIT SIX

Administration of Medication

PART TWO

PROCEDURES
AND
ACCURATE DOCUMENTATION

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UNIT SIX
PART TWO

PROCEDURES AND ACCURATE DOCUMENTATION

Objectives:

After studying this unit, the student will be able to:

1. Demonstrate accurate documentation of medication administration on a MAR.
2. Describe the importance of confidentiality in documentation that is part of an individual's health care record.
3. Identify the rules of documentation.
4. Correctly document the medications administered.
5. Demonstrate his/her knowledge of the correct procedure to follow when an error in documentation is made.

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Introduction

Direct Support Staff administering medications are responsible for accurately documenting that the medications were given. The MAR and progress notes are the forms most frequently used for documentation by Direct Support Staff. Many people new to the process of documenting are sometimes fearful and hesitant and this can lead to further errors.

Health Care Records

A health care record contains a collection of facts regarding the individual. ***The individual's health care record is confidential.*** Materials and entries made in this record should be accurate, factual and done with sincerity, thought, and safety.

This is a big responsibility. Direct Support Staff need to know their limitations and understand how their limitations could affect their practice.

All that you have learned so far and all that you will learn in this course finds its expression in a single document: the individual's health care record. Each time you handle this record, remember that it is a legal summary of the occurrences and situations pertaining to the individual's care.

The ABC's of Documentation
A - Accurate
B - Brief
C - Completely objective

As you no doubt know, one function of the law is to protect those who are dependent on others from unfair, unscrupulous, or inadequate treatment. When an individual places his/her life in the hands of any licensed or unlicensed staff person providing care, he/she should be able to reasonably expect that his/her life and other human rights will be protected from inadequate care.

Many newly trained staff naturally approach the process of documentation with a great deal of hesitation. However, if you carefully adhere to the principles of documentation and then apply them in a competent manner, you should be able to provide safe and appropriate care.

A health care record is the collection of all pertinent facts of the individual's life history, his/her illnesses, and treatments given. Health care records are an important tool in the practice of medicine, nursing, and care in general. These records serve as a basis for planning care. They provide a means of communication among licensed health care providers, nurses, and other staff members. They furnish documentary evidence as to the course of illness and

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treatment. In addition, they serve as a basis for review, study and evaluation of the health care rendered.

Examine the included pages from a record. Each agency has records and other forms that meet its needs. You are responsible for knowing and using the appropriate records and forms as required in your place of employment. The sample MAR on the following pages may not be familiar to you, but it contains components that are common to all records.

The collection of informational sheets and forms relating to an individual is accumulated under one cover. Great care must be taken to ensure the accuracy of the record as it may be admitted into a court of law as evidence of the treatment and care that an individual received while at an agency. The record must be preserved for many years.

Understanding how a health care record is used will help you to appreciate the necessity of documenting accurately and factually because years later, a record with your notations may be reviewed and the meaning must be clear, precise, and not easily misconstrued. ***You are encouraged to record observed facts and not inferences and judgments***.

Remember that the health care record is confidential and its contents should neither be shown nor discussed with anyone not administering care to the person. The individual you are supporting, however, does have a right to know the contents of his/her record, ***but it is generally the responsibility of the licensed person (and not yours) to make the contents known to the individual***. You should also remember that accounts of the individual's condition are written and signed by the staff person giving the care.

Let us now look more closely at the same medication administration record (MAR) contained in this unit and determine its make-up. The column naming medication lists all medications that have been administered to the individual during that particular month. The listed medications are from the licensed health care provider's orders and the process by which they appear on the MAR is known as "transcribing".

Transcribing involves copying the licensed health care provider's orders or committing the licensed health care provider's verbal orders to writing.

Note: Direct Support Staff are not permitted to transcribe written orders or take verbal orders from a licensed health care provider. You may be permitted to copy new written orders from a pharmacy label onto a MAR or other appropriate documentation form, after contacting the agency nurse and verifying the information. You will receive specific training from the agency nurse before being allowed to do this task.

The hour column of the MAR simply tells at what times the medications are to be administered. Unless the licensed health care provider specifies such times, each

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Documentation Rules

Listed below is a set of general documentation rules:

- Make sure you are familiar with the medications listed, doses ordered, and abbreviations used.
- Your initials must appear below the correct date and opposite the medication administered, for each medication you administered.
- Your initials and full signature should be recorded in the appropriate space of each medication administration record sheet (MAR).
- ***"Ditto marks" should never be used***.
- ***Never erase or use "white-out"/liquid eraser***. If the record is called into court, erasures provide reason for legal questions to be raised. If you make an error in recording, draw a single line through the error and write above the line your initial and the date that the "error" occurred. If possible, explain the reason for the "error". ***Do not use the term "error" when recording this; the single line indicates the error.***
- Document all entries ***in blue or black ink only (never use any color other than blue or black). Never use a pencil or felt tip pen!***
- Record immediately after administering the medication on the Medication Administration Record (MAR). This is the only way you can be sure that you are documenting the right medication, given to the right person, at the right time, and by the right route. When the MAR is not used, the chance of medication error is greater. When the MAR is used, mistakes are more easily detected. Using the MAR will help prevent mistakes.
- If a medication cannot be administered as ordered due to a contraindication, print your initials in the appropriate box, circle the initials, and note reason for withholding on the progress notes on back of the MAR ***Notify the agency nurse or supervisor immediately regarding your actions and reasons for withholding.***
- If the individual refused the medication, follow the instructions in the nursing plan of care regarding the number of additional attempts that should be made within a designated time frame before recording the medication as refused by placing a circle in the appropriate box. Write your initials inside the circle and the reason for this refusal in the progress notes or on the back of the MAR. ***Notify the agency nurse or supervisor immediately regarding your actions and reasons for withholding.***
- Remember that documentation is not done correctly unless it contains your initials, verified with full signature and title on the MAR, or full signature and title in the progress notes.

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Rules of Documentation
Summary

- Writing or printing is acceptable.
- ***Always use ballpoint pens with blue or black ink. Never use a pencil or felt tip pen!***
- Always write neatly and legibly.
- Use the correct column, appropriate line, and correct record.
- Use the correct spelling.
- ***Never erase or use "white-out" or liquid eraser*** – draw a line through the error, initial and date. ***Do not use the term "error" when recording this; the single line indicates the error.***
- Always document as soon as possible after administering/giving the medication.
- Always document the time, date and year that the medication is administered.
- ***Only accepted abbreviations may be used***.
- Close each entry with your full signature.
- ***DO NOT document for another employee***.
- Blank spaces are not left on the MAR or progress notes. Lines are drawn to prevent illegal entry.
- ***The individual's record is strictly confidential***. Relationships are built on trust and it is essential to hold in confidence all matters concerning the individual.
- ***ALWAYS avoid the use of personal opinions***.

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Sample Medication Administration Form (MAR)
Page 1

NAME:_____ **DOB:**_____

PHYSICIAN:_____ **PHARMACY:**_____

ALLERGIES:_____

DIAGNOSES:_____

MONTH:_____ **YEAR:**_____

MEDICATION	HOUR	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Cozaar 50mg 1 tablet by mouth every morning (blood pressure control)	8 AM																
Docusate Sodium 100 mg 1 capsule by mouth every morning (stool softenor)	8 AM																
Luvox 100mg 1 tablet by mouth every morning	8 AM																
Luvox 50mg 1 tablet by mouth @ HS																	
	HS																
Dimetapp Elixir 1 teaspoon @ HS PRN (nasal congestion or runny nose)																	
	HS																

_____ _____ _____
Nursing Signature **Initials** **Date**

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Sample Medication Administration Form (MAR)
Page 1 (back of page)
PRN Medications

Date	Hour	Initials	Medication	Reason	Result

Staff Signatures

Initials	Staff Signature	Initials	Staff Signature

Date	Comments/Notations	Signature

Name:_____ **Agency:**_____

Month/Year:_____

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Sample Medication Administration Form (MAR)
Page 2

NAME:_____ **DOB:**_____

PHYSICIAN:_____ **PHARMACY:**_____

ALLERGIES:_____

DIAGNOSES:_____

MONTH:_____ **YEAR:**_____

MEDICATION	HOUR	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Cozaar 50mg 1 tablet by mouth every morning (blood pressure control)	8 AM															
Docusate Sodium 100 mg 1 capsule by mouth every morning (stool softenor)	8 AM															
Luvox 100mg 1 tablet by mouth every morning	8 AM															
Luvox 50mg 1 tablet by mouth @ HS																
	HS															
Dimetapp Elixir 1 teaspoon @ HS PRN (nasal congestion or runny nose)																
	HS															

_____ _____ _____
Nursing Signature **Initials** **Date**

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Sample Medication Administration Form (MAR)
Page 2 (back of page)

PRN Medications

Date	Hour	Initials	Medication	Reason	Result

Staff Signatures

Date	Comments/Notations	Signature

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UNIT SIX

Administration of Medication

PART THREE

ERRORS IN MEDICATION ADMINISTRATION

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UNIT SIX
PART THREE

ERRORS IN MEDICATION ADMINISTRATION

Objectives:

After studying this unit, the student will be able to:

1. Identify how medication errors can occur.
2. Demonstrate accurate documentation.
3. Identify the "***Six Rights***" in medication administration.

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Reporting Errors in Medication Administration

You have made an error in administering medications if you have not observed each of the ***"Six Rights"***:

- **The Right *Individual***
- **The Right *Time***
- **The Right *Medication***
- **The Right *Dose***
- **The Right *Route***
- **The Right *Documentation***

Note: ***It is very important to understand that a medication error is defined as any violation of the "Six Rights".***

An error, which occurs in setting up, administering, or documenting a medication, must be reported immediately.

An error shows a breakdown in the system and is a serious occurrence.

Errors happen when you do not follow the Six Rights!

Here is an example showing a violation of the "Six Rights". Study it carefully.

Consider the effect of an error in the order for Glucophage 500 mg. 2 times daily by mouth at 8 a.m. and 5 p.m. The desired effect of the drug is to increase the production of insulin in the body so that sugars and starches are assimilated. A consistent level of the drug must be maintained for optimum effectiveness.

Consider the consequences of a Glucophage administration error involving the:

1. ***Wrong Individual*** - This error involves two individuals. The individual who did not receive the medication would be deprived of the desired effect and the individual who received the medication without an order would be receiving a potentially dangerous drug. The effect of this drug on a non-diabetic person can be detrimental.

2. ***Wrong Time*** - In order to maintain a consistent level of effectiveness, Glucophage should be given at regular intervals, usually 2 times daily.

3. ***Wrong Medication*** - Again the individual, for whom it was prescribed, would be deprived of the desired effect of the prescribed Glucophage and the other individual would be receiving a drug that was not prescribed.

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4. ***Wrong Dosage*** - The dosage of Glucophage is carefully calculated by the licensed health care provider and adjusted to the needs of the individual. Too little would not be effective; too much could lower the blood sugar below desired levels.

5. ***Wrong Route*** - If the medication were given sublingually instead of orally, the rate of absorption would be changed. The taste may also be very unpleasant.

6. ***Wrong Documentation*** - This error may also involve two individuals, the first, who actually was given the medication, but that fact was not stated on his/her record, and another staff member may give the medication again. The second, who was given the medication again, but the record indicates that she/he had the medication. If it is known that the medication might harm this second individual, actions, which were not necessary, may be taken.

***Important Documentation Note:* If you are administering medication from a "blister pack" (unit doses) remember that signing the "blister pack" *is not the same* as signing the MAR. ALWAYS document and sign in the MAR!**

What To Do When An Error Occurs

DO NOT PANIC!!!!!

When an error occurs, ensure the safety of the individual and then immediately notify the designated agency administrative staff, e.g., nurse or supervisor, according to your agency's policies and procedures. The designated administrative person will give you instructions for the immediate care of the individual.

- A Medication Error/Incident Report Form should be filled out, according to your agency's policy and procedure. All questions should be answered completely. The person making the error and the designated agency administrative staff should sign the form (see the sample Medication Error/Incident Report Form at the end of this section).

- Always follow your agency's policy and procedure and document in the individual's record exactly when the error happened, who was notified, what was done, and how the individual was affected. ***There should always be follow-up documentation reflecting any long-term effects.***

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- If more than one person is involved in the error, all involved should be included on the Medication Error/Incident Report form.

- Sign all entries in blue or black ink.

Note: **Unfortunately, errors are made. Every error is potentially serious. Care must be taken to prevent errors from happening. Once an error does occur, the situation must be studied so that future similar errors might be prevented. If you make an error or discover an error made by another staff person, report the error *immediately* to the agency nurse or your supervisor, according to your agency policy**.

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Sample Medication Error/Incident Report Form (Page 1)

Name of Agency

This report is to be completed immediately upon the discovery or occurrence of a medication error, and submitted promptly for review.

Name of Individual: _____

Home: _____

Date Incident Occurred/Discovered: _____

Name of Person Reporting Incident: _____

TYPE OF INCIDENT	**CAUSE OF INCIDENT**
___ wrong medication	___ reading error
___ wrong dose/strength	___ documentation error
___ wrong time	___ verbal communication
___ wrong person	___ calculation error
___ wrong route	___ lack of concentration
___ wrong documentation	___ pharmacy error
___ omission	___ medication not available
___ omission due to refusal	___ individual refusal
___ other _____	___ other _____

Description of Incident: (include name(s) and dosage of medications involved):

_____
_____
_____
_____
_____
_____

Agency Nurse Notified When Incident Discovered/Occurred: ___Yes ___No

Signature of Person Who Made The Error:_____

Signature of Person Completing Report: _____

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Sample Medication Error/Incident Report Form (Page 2)

This Section To Be Completed By Reviewer:

Name and title of person responsible for making error:

_____

Copy forwarded to:

_____

Persons notified:

_____

Follow up action taken:

_____

_____

Reviewed by Incident Management: _____ **Yes** _____ **No**

If yes, date of review:_____

Recommendations of Incident Management:

_____

_____

_____

Signature of Reviewer: _____

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UNIT SIX

Administration of Medication

Part Four

Practicum Instruction/Performance Criteria

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UNIT SIX
Administration of Medication
Part Four

Objectives For Practicum
Instruction/Performance Criteria

When Administering Oral Or Topical Medications, The Student Will:

1. Select the correct MAR for the individual who will be receiving the medications.
2. ***Read the MAR carefully!***
3. Wash hands, put on gloves, if indicated.
4. Set up medications one at a time, using the principles of medical asepsis (clean to dirty).
5. Perform the "three (3) checks" on each medication in the following manner:
   - When the container is taken from the individual's supply ***(before you pour)***
   - When the medication is removed from the container ***(as you pour)***
   - When the container is returned to the individual's supply ***(after you pour but <u>before</u> you administer)***

<u>Note</u>: Topical medications that are not prepared in the medication area are checked for the second time before administration.

6. State use, correct dosage, and route for each medication to be administered.
7. Set up all necessary equipment to administer the medications to be given.
8. Medications and MARs are to be kept secure at all times with ONLY authorized personnel having access.
8. Approach, identify, and explain the procedure to the individual.
9. ***SAFELY*** administer the correct medication according to the "***Six Rights***".
10. Remain with the individual until the act of swallowing the medication takes place.
11. Leave the individual in a safe and comfortable position.
12. Immediately after administration, accurately document each medication in accordance with acceptable documentation standards.

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13. Return all equipment and any medication to the appropriate storage area, dispose of waste in the appropriate manner.
14. Observe, report and record any unusual occurrence.
15. Return to check the individual within 30 minutes after administration of medications.

Points To Remember!

The licensed health care provider orders;

The pharmacist dispenses; and,

The Direct Support Staff person administering the medication delivers.

Never give a medication with which you are unfamiliar!

Never give a medication unless you know why it is being given and the correct dosage!

Always follow the "Six Rights" of medication administration.

Always follow your agency's policies and procedures for medication administration.

Guidelines for Administering Medications

- ***All medications administered in the developmental disabilities system require a written order from a licensed health care provider.***
- The person administering the medication has the responsibility to know the medications intended use, the purpose for which it is being given, any warnings or directions of a specific nature concerning the medication, and the usual dose.
- It is the responsibility of the person administering the medication to be familiar with the condition of the person, e.g., allergies to certain medications, ability to swallow.
- The following items are important responsibilities of the nurse or the Direct Support Staff. Medications should always be prepared and delivered according to these "***Six Rights:***"

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►**The Right *Individual***
►**The Right *Time***
►**The Right *Medication***
►**The Right *Dose***
►**The Right *Route***
►**The Right *Documentation***

Avoid distractions!

Read the MAR carefully. If it is not clear, ***contact the agency nurse or supervisor for assistance.***

- ***Carefully compare the label of the medication container to the MAR, checking to see that the label and the MAR read exactly the same.***

- ***The comparison of the medication label and the MAR should be done three times <u>for each and every medication</u> in the following manner:***
  - When the container is taken from the individual's supply ***(before you prepare)***
  - When the medication is removed from the container ***(as you prepare)***
  - When the container is returned to the individual's supply ***(after you prepare but <u>before</u> you administer).***

- *Never take medication from an unmarked or soiled container.*

- *Keep all containers tightly closed to prevent any changes to the medication from occurring.*

- *Any change in color, consistency, or odor of medication must be reported according to agency policy and to the prescribing practitioner.*

- *When administering medication to an individual, verify that it is the correct individual.*

- *Give the medication at the time it is ordered, and remain with the individual until the medication is taken/swallowed.*

- *Provide privacy to the individual during medication administration when indicated*

- *Medications that have been prepared and not given to the individual for any reason, e.g., refusal, absence, should be discarded. Never return medications to their container.*

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- *Never administer a medication that has been set up or poured by another person.*

- *Direct Support Staff must be aware of their agency's policies and procedures, and the additional responsibilities concerned with the administration of controlled substances.*

- *If the individual refused the medication, follow the instructions in the nursing plan of care regarding the number of additional attempts that should be made within a designated time frame before recording the medication as refused by placing a circle in the appropriate box. Write your initials inside the circle and the reason for this refusal in the progress notes or on the back of the MAR.* ***Notify the agency nurse or supervisor immediately regarding your actions and reasons for withholding***

- *Follow Standard Precautions when administering medications.*

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Unit Six
Practice Test

Fill in the Blanks

List the "Six Rights" of Medication Administration

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

True or False Questions

1. ____ The label on the medication container should be read once before administering the medication.

2. ____It is permissible to administer medication that someone else has set up as long as you are familiar with the medication and the person who set it up.

3. _____When administering medication, you should give the medication on time and remain with the individual until the medication has been swallowed.

4. _____When pouring liquid medication, hold the bottle with the label facing upward (in the palm of your hand).

5. ____It is permissible to handle medication with your bare hands.

6. ____When administering eye ointment, it is permissible to use the same cotton ball to wipe both eyes.

7. ____Administer ear drops by pulling the ear lobe outward away from the individual's head.

8. ____You have made an error in administering medications if you have not observed each of the "Six Rights".

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9. ____Any medication that may be purchased at the pharmacy without a prescription (over-the-counter medications, e.g., aspirin) may be given to an individual without an order from the licensed health care provider.

10. ____If Jane runs out of Depakote and is due to receive a dose, it is permissible to borrow a dose from another individual's container and replace it after Jane's refill arrives.

Multiple Choice Questions (circle the correct answers)

1. Which of the following people are considered licensed personnel?

   A) Registered Nurse (RN)
   B) Case Manager
   C) Licensed Practical Nurse (LPN)
   D) Direct Support Staff
   E) A & C

2. An individual is seen in the Emergency Room at 6 PM on Saturday for an acute infection. The physician orders antibiotics. You should:

   A) Wait until Monday to contact the agency nurse and have the prescription filled.
   B) Have the prescription filled immediately, and contact the agency nurse before copying the new order from the pharmacy label onto the MAR.
   C) Copy the information from the prescription form onto the MAR, have the prescription filled at the pharmacy, and then contact the agency nurse.

3. Jim has a tendency to dramatize health complaints. He is given penicillin for an infection and 2 hours later he begins to complain that he feels nauseous. He also tells you that that he has red spots on his arms and you notice that he is short of breath and wheezing when he breathes. You should:

   A) Ignore his complaints.
   B) Document his complaints/skin condition, and contact the agency nurse for further instructions.
   C) Give the next dose of penicillin and see if the red spots and wheezing get any worse.
   D) Call 911 as he is having a severe allergic reaction..

4. Medications may be administered by which of the following routes?

   A) Oral
   B) Topical
   C) Rectal
   D) All of the above

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5. If a topical medication is to be removed from a container before applying, you should use:

   A) Your bare fingers
   B) A gloved hand
   C) A clean applicator
   D) B and C

Matching Questions (using the following list, choose the word that best fits the definition):

A) Ointment
B) Sublingual
C) Dose
D) Side Effect
E) Scored
F) Antibiotic
G) Antiepileptic

1.____ A medication marked with lines or indentations that allow for easy division in halves or quarters.

2.____ A medication dissolved under the tongue.

3.____ The amount or quantity of medication given at one time.

4.____ A semi-solid form of medication applied locally to the skin.

5.____ A medication used to treat seizure disorders.

6.____ A class of medications used to treat infections.

7.____ An effect of a medication whether desirable or not, other than the effect for which it was administered.

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CHECKLIST FOR ADMINISTRATION OF ORAL MEDICATION

STUDENT'S NAME_____

NURSE TRAINER'S NAME _____

AGENCY _____

DATE _____

SCORE: _____**PASS** _____**FAIL**

Student must successfully complete 100% of the performance standards to pass this objective.

COMMENTS

_____

_____

P/F 1. Perform all items on the ***Guidelines for Administration of Medications***.

P/F 2. Prepare oral medication according to the "***Six Rights***".

P/F 3. Prepare medication according to prescribed dosage following any additional instructions, e.g., crush tablet.

P/F 4. Pour liquid medications correctly:
___a) secured cap before shaking (if shaking is indicated)
___b) set cap top side down on the table
___c) poured correct dose, away from label
___d) held med. cup at eye level
___e) wiped lip of bottle before replacing cap

P/F 5. Keep MAR with medication supply. Set up necessary equipment for administration.

P/F 6. Identify the individual correctly and explain the procedure.

P/F 7. Observe the individual for any unusual conditions that should be reported to the agency nurse or supervisor prior to administration; e.g., drowsiness, difficulty swallowing.

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P/F 8. Oral medications are given with water unless contraindicated. Remain with the individual until he/she swallows the medication.

P/F 9. Sublingual medications given under the tongue with instructions to the individual to keep medication under tongue until dissolved.

P/F l0. Medications in Troche or Lozenge form are given with instructions to hold in mouth until dissolved.

P/F 11. Medications in spray or gargle form are applied topically and given as instructions state. Individual is instructed not to take liquids for a specific time period as ordered.

P/F 12. Appropriate documentation on MAR that the medication has been administered.

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CHECKLIST FOR ADMINISTRATION OF EYE MEDICATION

STUDENT'S NAME_____

NURSE TRAINER'S NAME _____

AGENCY _____

DATE _____

SCORE: _____**PASS** _____**FAIL**

Student must successfully complete 100% of the performance standards to pass this objective.

COMMENTS

_____

_____

PI. 1. Perform all items on the ***Guidelines for Administration of Medications***.

P/F 2. Prepare medication according to the ***"Six Rights"***.

P/F 3. Prepare medication according to prescribed dosage following any additional instructions.

P/F 4. Keep MAR with medication supply. Set up necessary equipment for administration.

P/F 5. Identify the individual correctly and explain the procedure.

P/F 6. Have the individual lying down or sitting.

P/F 7. Observe affected eye(s) for unusual condition, which should be reported to the agency nurse or supervisor prior to administration.

P/F 8. Cleanse eye(s) with clean wipe, wiping from inner corner to outer, one time. If more cleaning is needed, use clean wipe for each cleaning.

P/F 9. Position the individual with head back, looking upward.

P/F 10. Check label on container, drawing up ordered amount into dropper.

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P/F 11. Administer correct dose in the following manner:

Drop Form: (Liquid medications may require shaking.)

a) Gently separate lids of the affected eye by raising upper lid with forefinger and lower lid with thumb. Approach with dropper from below, outside the person's line of vision. Apply drop(s) gently near the center of lower lid not allowing drop(s) to fall more than one inch before striking eye.
b) Gently draw lower lid down with forefinger, steady hand on forehead and hold dropper.
c) ***AVOID ANY CONTACT WITH THE EYE***.

Ointment Form:

a) Gently separate lids of the affected eye by raising upper lid with forefinger and lower lid with thumb.
b) Gently draw lower lid to be medicated down with forefinger, steady hand on cheek if necessary. Use care to avoid the applicator encountering the eye.
c) Apply prescribed ointment to affected eye in a thin layer along the inside of the lower lid.
d) ***AVOID ANY CONTACT WITH THE EYE.***

P/F 12. Ask the individual to keep eye(s) closed for a few minutes.

P/F 13. Wipe excess medication with clean wipe using separate clean wipe for each eye if drug is administered to both eyes.

P/F 14. Reposition the individual, if necessary.

P/F 15. Appropriate documentation on MAR that the medication has been administered.

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CHECKLIST FOR ADMINISTRATION OF EAR MEDICATION

STUDENT'S NAME_____

NURSE TRAINER'S NAME _____

AGENCY _____

DATE _____

SCORE: _____**PASS** _____**FAIL**

Student must successfully complete 100% of the performance standards to pass this objective.

COMMENTS

_____

_____

P/F 1. Perform all items on the ***Guidelines for Administration of Medications***.

P/F 2. Prepare ear medication according to the ***"Six Rights".***

P/F 3. Prepare medication according to prescribed dosage following any additional instructions.

P/F 4. Keep MAR with medication supply. Set up necessary equipment for administration.

P/F 5. Approach, identify and prepare the person.

P/F 6. Position the individual:
a) If lying in bed, turn head to side
b) If sitting in chair, tilt head sideways until ear is as horizontal as possible

P/F 7. Clean entry to ear canal with a clean wipe.

P/F 8. Observe affected ear(s) for unusual condition, which should be reported to the agency nurse prior to administration.

P/F 9. Check label on container, drawing up ordered amount into dropper. (Liquid medications may require shaking.)

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P/F 10. Gently pull ear back and up.

P/F 11. Do not contaminate the dropper by touching any part of ear or surrounding area during administration.

P/F 12. Instruct and insure that the individual maintains the position for the amount of time indicated in the nursing plan of care. If both ears, wait five minutes before administering to second ear.

P/F 13. If indicated in the individual's nursing plan of care, place a clean cotton ball loosely in the ear provided the individual does not have PICA behavior. ***Remove the cotton ball after 5 –10 minutes***

P/F 14. Appropriate documentation on MAR that the medication has been administered.

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CHECKLIST FOR ADMINISTRATION OF TOPICAL MEDICATION

STUDENT'S NAME_____

NURSE TRAINER'S NAME _____

AGENCY _____

DATE _____

SCORE: _____**PASS** _____**FAIL**

Student must successfully complete 100% of the performance standards to pass this objective.

COMMENTS

_____

_____

P/F 1. Perform all items on the ***Guidelines for Administration of Medications***.

P/F 2. Prepare topical medication according to the ***"Six Rights".***

P/F 3. Prepare medications according to prescribed dosage following any additional instructions. (Liquid medications may require shaking.)

P/F 4. Keep MAR with medication supply. Set up necessary equipment for administration.

P/F 5. Approach, identify and explain the procedure to the individual.

P/F 6. Position the individual.

P/F 7. Observe affected area for unusual condition, which should be reported to the agency nurse prior to administration.

P/F 8. Cleanse the area if indicated.

P/F 9. Check label of container, remove top, avoiding contamination.

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P/F l0. Apply correct medication in the following manner:

a) Remove wrapping from applicator (tongue blade, disposable spoon, etc.), scoop out correct amount from container. Do not "double dip" applicator.

b) Spread medication on affected area (may apply medication from tongue blade onto gauze, tissue, cotton-tipped swab, etc.).

c) Do not let tip of container touch affected area.

d) If approved by agency nurse, using gloves, remove correct amount from container and spread on affected area. (Double gloving may be necessary).

P/F 11. Remove excess with tissue if indicated.

P/F 12. Appropriate documentation on MAR that the medication has been administered.

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CHECKLIST FOR ADMINISTRATION OF NASAL MEDICATION

STUDENT'S NAME_____

NURSE TRAINER'S NAME _____

AGENCY _____

DATE _____

SCORE: _____**PASS** _____**FAIL**

Student must successfully complete 100% of the performance standards to pass this objective.

COMMENTS

_____

_____

P/F 1. Perform all items on the ***Guidelines for Administration of Medications***.

P/F 2. Prepare nasal medication according to the ***"Six Rights"***.

P/F 3. Prepare medication according to prescribed dosage following any additional instructions.

P/F 4. Keep MAR with medication supply. Set up necessary equipment for administration.

P/F 5. Approach, identify and explain the procedure to the individual.

P/F 6. Position the individual:

DROP FORM:

a) If lying in bed, position on back, tilt head backwards
b) If sitting in chair, tilt head backwards

SPRAY FORM:

a) If lying in bed, position on back, tilt head backwards
b) If sitting in chair, tilt head backwards

P/F 7. Clean entry to nose with a clean wipe.

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P/F 8. Observe nostrils for unusual condition, which should be reported to the agency nurse prior to administration.

P/F 9. Check label on container and follow delivery directions. Liquid medications may require shaking.

P/F 10. Do not contaminate the dropper by touching any part of nose or surrounding area during administration. Tip of nasal spray is placed inside the nostril.

P/F 11. Instruct and insure that the individual maintains the position for the amount of time indicated in the nursing plan of care.

P/F 12. Recap/clean the container and replace where medication is stored.

P/F 13. Appropriate documentation on MAR that the medication has been administered.

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CHECKLIST FOR ADMINISTRATION OF INHALANT MEDICATION

STUDENT'S NAME_____

NURSE TRAINER'S NAME _____

AGENCY _____

DATE _____

SCORE: _____**PASS** _____**FAIL**

Student must successfully complete 100% of the performance standards to pass this objective.

COMMENTS

_____

_____

P/F 1. Perform all items on the ***Guidelines for Administration of Medications***.

P/F 2. Prepare inhalant medication according to the ***"Six Rights"***.

P/F 3. Prepare dosage according to prescribed dosage following any additional instructions.

P/F 4. Keep MAR with medication supply. Set up necessary equipment for administration.

P/F 5. Approach, identify and explain the procedure to the individual.

P/F 6. Attach the stem of the canister into the hole of the mouthpiece so that the inhaler looks like an "L".

P/F 7. Shake the canister to distribute the drug within the pressurized chamber.

P/F 8. Instruct the individual to slowly exhale through pursed lips.

P/F 9. Instruct the individual to seal lips around the mouthpiece.

P/F 10. Compress the canister between thumb and fingers and instruct the individual to inhale at the same time.

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P/F 11. Release pressure on the canister, but instruct the individual to continue inhaling as much as possible.

P/F 12. Withdraw mouthpiece.

P/F 13. Instruct the individual to hold breath for a few seconds.

P/F 14. Instruct the individual to exhale slowly, through nose.

P/F 15. Recap/clean canister and replace where medication is stored.

P/F 16. Appropriate documentation on MAR that the medication has been administered.

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UNIT SEVEN

Anatomy and Physiology Guide

Instructors Reference Guide

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THE BODY SYSTEMS

ANATOMY OF THE SKELETAL SYSTEM

Skeleton

The hard, supporting, connective tissues around or within the body of an animal are collectively known as the **skeleton.** The human body contains 206 bones, many of which have joints at their ends to connect them to adjacent bones.

Cartilage

The skeleton is first laid down as **cartilage,** which is later replaced by bone that is primarily calcium. The "soft bones" found in babies are composed early of cartilage. Not all cartilage is replaced by bone; the nose and the external ears are examples. Bone is living material which is constantly being torn down and rebuilt during the life of the individual organism.

Anatomy of the Skeleton

The places where bones are connected to each other are the **joints,** e.g. the knee joint. The major function of joints is to allow and control the extent of movement between adjacent bones. The ends of bones are covered with soft layers of cartilage that cushion the joints; **ligaments** are strong bands of tissue that hold bones together. Muscles are attached to bones by **tendons.**

Muscles commonly known are the biceps located on the front of the upper arm, or the quadriceps located on the front of the upper leg.

PHYSIOLOGY OF THE MUSCULAR SYSTEM

The major functions of the muscular system is to provide movement and support, protect internal organs, and give our body shape.

Muscle cells are unique in that they have the power of shortening and then returning to their original length, thereby creating movement, which is one of the basic characteristics of a living thing.

Movement is accomplished by the shortening or **contraction** of skeletal muscles. Muscles pull, never push. Therefore, muscles work in opposite or **antagonistic** pairs. When one muscle pulls a limb in one direction, another muscle pulls it back. There are three basic muscle types: cardiac (heart), smooth (visceral), and skeletal muscle

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PATHOLOGY OF THE MUSCULAR AND SKELETAL SYSTEMS

Skeletal muscle is a comparatively hardy tissue; nevertheless, some diseases can affect it. **Atrophy** is a decrease in tissue (muscle) size, such as that which occurs from non-use, or immobilization. **Dystrophy** (muscle degeneration) such as muscular dystrophy may be inherited, or as a result of nerve injuries or stroke. Weakness, then, is the common denominator of muscle disease; and it may result from a disease of the muscle itself or secondary to disease of the nervous system.

Paralysis results when a group of muscles fail, because of a variety of causes, e.g. spinal cord injury.

Fracture

The most common skeletal condition is a **fracture.** Fractures are usually causes by accidental injury. The symptoms may include pain, swelling, discoloration, or abnormal position on movement. The treatment consists of casting or surgery.

Osteoporosis

Another condition frequently seen is **osteoporosis** which is caused by inadequate calcium absorption. The symptoms are brittle, easily broken bones. The treatment consists of medication and treatment of the fractures if necessary.

Arthritis, Rheumatoid Arthritis, Osteoarthritis

Arthritis is a very common ailment. The cause of **Rheumatoid Arthritis**, which affects the younger population, is unknown. **Osteoarthritis,** also known as degenerative arthritis, occurs in the older population. The symptoms are pain and swelling in joints with decreased movement. The treatment consists of medication, exercise, and heat to the affected joints.

Gout

Gout is also seen frequently in the older population. It is caused by increased uric acid levels in the body. The symptoms are pain, acute or chronic, and swelling in the affected joints. The treatment consists of medication and diet.

Muscle Spasm

Muscle spasm is caused by an irritation of a muscle. The symptoms are sudden pain and knotting of muscles. The treatment consists of massage, heat and medication.

Muscle Strain

Muscle strain is caused by an injury to the muscle. The symptoms are pain and swelling. The best treatment is rest, medication, and elevation of the injured limb.

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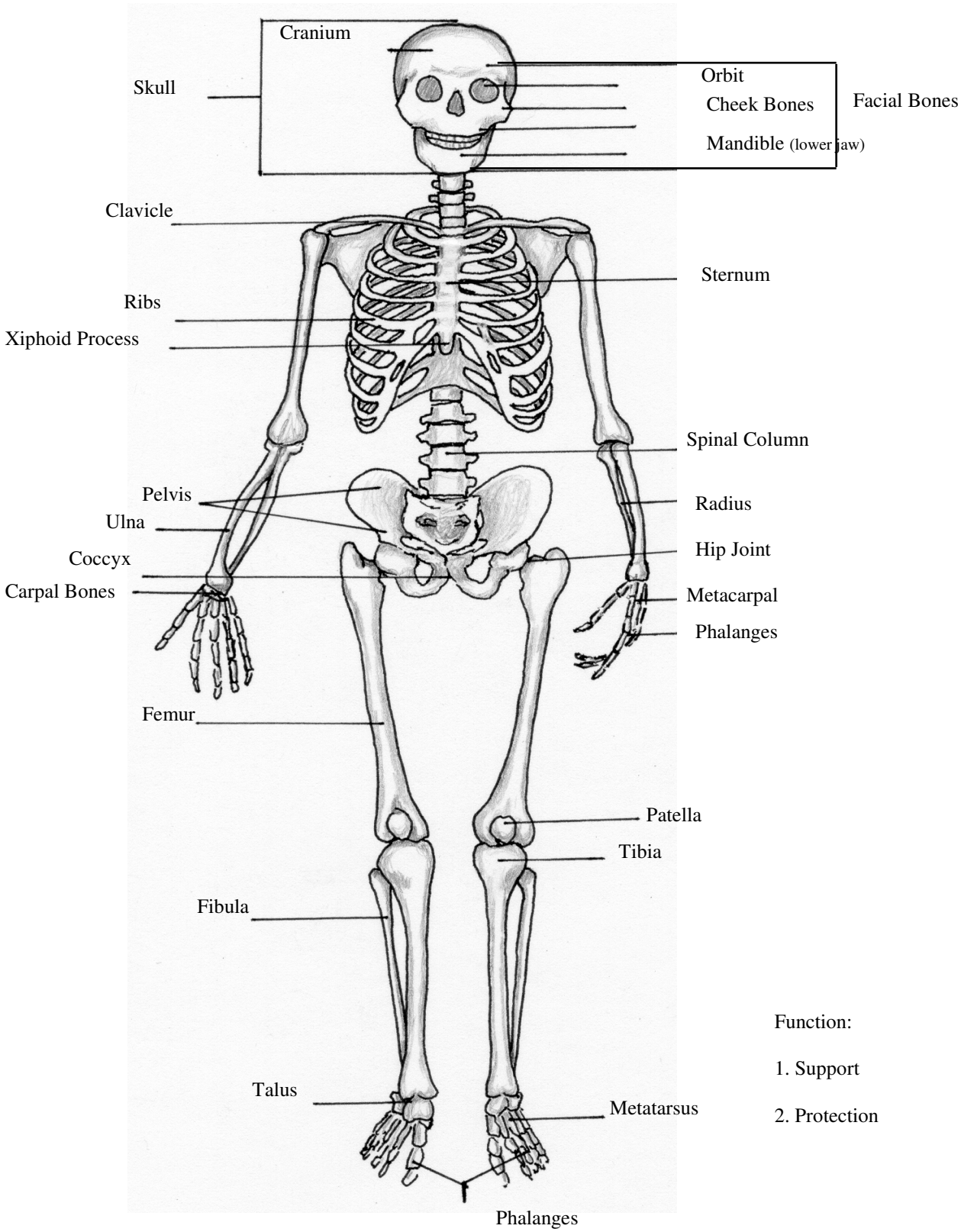

Function:

1. Support

2. Protection

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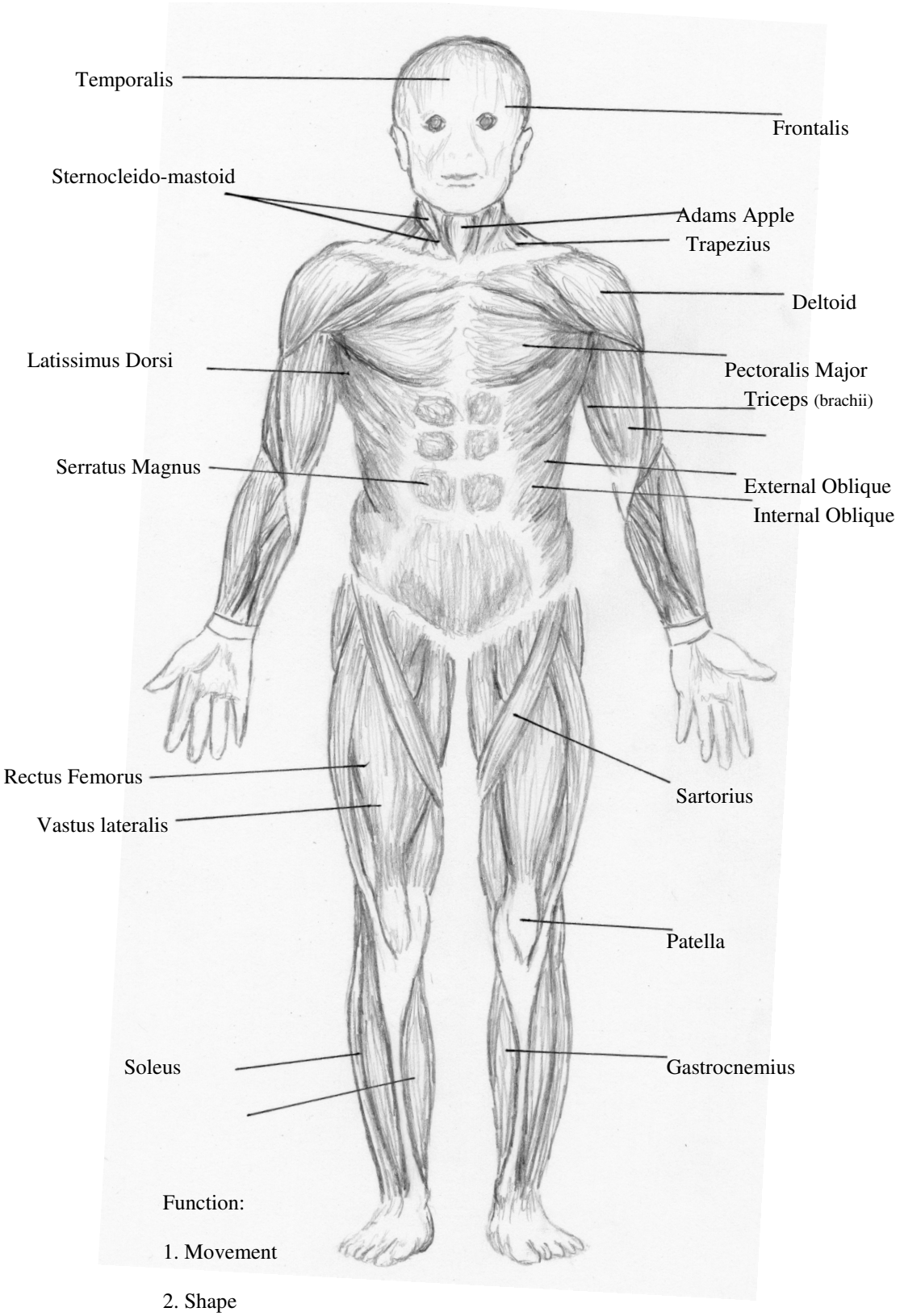
ANTERIOR (front) VIEW of MUSCULAR SYSTEM



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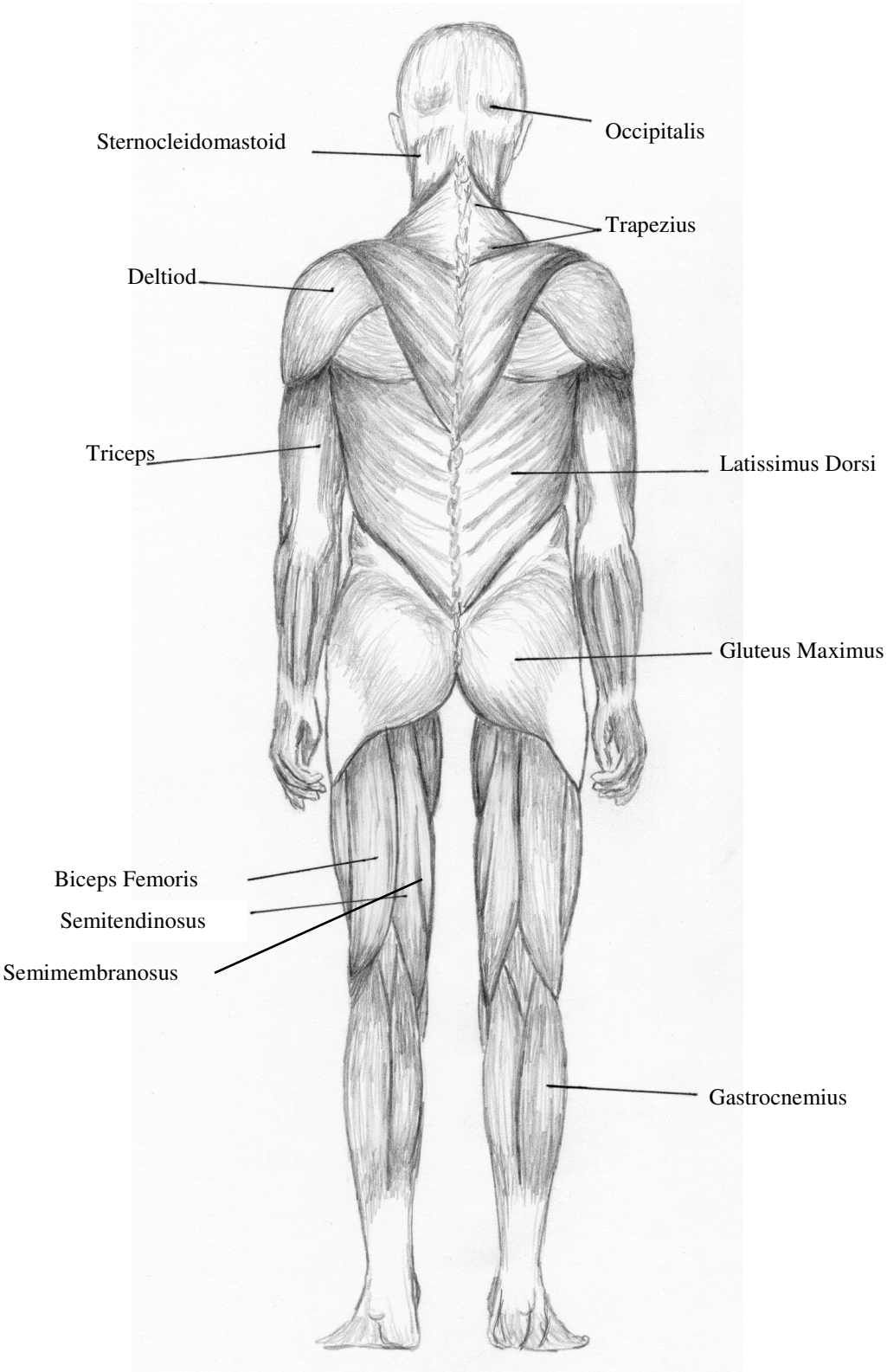
POSTERIOR (back) VIEW of MUSCULAR SYSTEM



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ANATOMY/PHYSIOLOGY OF THE NERVOUS SYSTEM

Nervous Control, Hormone Control, Stimuli, Receptors, Internal Communication, External Communication

A many-celled creature needs systems of communication and control to coordinate all the activities of its complex body. At least two different systems operate to accomplish this interaction - a system of **nervous** control and a system of **hormone** control. For nervous control, environmental changes **(stimuli)** such as light or sound must be sensed by sensitive organs **(receptors)** such as the eyes, ears, and taste buds. A signal is set up in these receptors and carried over special fibers (nerves) to other organs. These other organs (e.g. muscles, glands) produce a response, either a movement or a secretion, respectively. In general, the nervous system provides for **internal** communication, among the organism's various body parts, and **external** communication between the organism and its environment.

Central Nervous System, Peripheral Nervous System

In man and other higher animals, the nervous system may be compared to a telephone system. There is a **central nervous system** (CNS) comparable to the central switchboard and a **peripheral nervous system** (PNS) comparable to the transmission lines. The CNS is comprised of the brain, which is a mass of nerve tissue, and the spinal cord, which is approximately as big around as a thumb. The spinal cord connects the brain to the body parts by way of 31 pairs of spinal nerves. The right side of the brain controls the left side of the body and the left side of the brain controls the right side of the body.

The peripheral nervous system (PNS) consists of twelve pairs of cranial nerves and the thirty-one pairs of spinal nerves. The chief function of the PNS is to send and receive signals to and from the brain.

The nervous system is responsible for communication and coordination between the various systems and structures of the body. It also allows the control of sensation, emotions and learning. It is considered to be composed of the voluntary and involuntary nervous systems. The "voluntary" nervous system is the central nervous system (CNS) and the peripheral nervous system (PNS). They control all **voluntary** activities.

Autonomic Nervous System

Another nervous system is the **autonomic nervous system** (ANS). The ANS is part of the nervous system that carries signals to smooth muscle, cardiac muscle, and glands. This **involuntary** nervous system includes reflex centers and can speed up or slow down body systems.

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PATHOLOGY OF THE NERVOUS SYSTEM

Cerebrovascular Accident (Stroke) is a sudden bleeding into the brain. The damaged brain tissue loses function within minutes. If the motor cortex of the brain is affected, it will produce weakness (paresis) or paralysis on the opposite side of the body. If the dominant side of the brain (the side that primarily controls motor function, usually the left side) is involved, the patient will also have **aphasia** (impaired communication function).

The brain is especially vulnerable to injuries **(trauma)** in modern times with high speed transportation. Examples include concussion, contusion, and penetrating injury.

- **Concussion:** Concussion is a momentary loss of consciousness and loss of reflexes following head trauma, with amnesia for the traumatic event and complete recovery. No structural damage can be detected in the brain.

- **Contusion:** Contusions are bruises of the surface of the brain sustained at the time of traumatic impact.

- **Penetrating Injuries:** Most penetrating injuries are from bullets. The damage to the brain from a bullet is proportional to the square of the velocity of the bullet, consequently high-speed bullets do much more damage to the brain than low-speed bullets. Other dangers from penetrating injuries are the impaction of fractured bone splinters into the brain plus the strong likelihood of introducing infection into the open wound.

Penetrating and crushing injuries of the spinal cord are very common and, if severe, may result in complete paralysis of the body below the lesion.

Amyotrophic Lateral Sclerosis

Amyotrophic lateral sclerosis (ALS) is sometimes referred to as Lou Gehrig's disease. Gehrig was a New York Yankee who died from ALS. ALS attacks nerve cells of the brain and spinal cord, affecting muscles of the body. The muscles weaken, cease to function, and eventually, waste away. This progressive disease eventually causes pneumonia and death follows. Men seem to suffer from the disease more often than women during latter middle life. It is not thought to be genetic. There is no cure.

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Multiple Sclerosis (MS)

Multiple sclerosis is a disease that affects young and middle-aged adults. The basic lesion is focal loss of the myelin sheath (nerve covering) in the brain in or around the spinal cord, which appears to be make nerves incapable for properly transmitting a nervous impulse. Because the loss of myelin can occur anywhere in the brain or spinal cord, the symptoms may vary considerably from one patient to another. The cause of multiple sclerosis is not known. The disease is chronic and spans usually 5 to 25 years, with the course of the disease alternately remitting and relapsing (getting better or worse), although the patient eventually becomes quite debilitated from muscle weakness, but MS is not considered to be a fatal disease.

Dementia, Alzheimer's

Dementia means a decrease in cognitive (thinking) function, usually accompanied by loss of memory for recent events. Senile dementia is a descriptive term for a condition of elderly persons who have poor memory for recent events, pick at their clothes, get lost easily, and are often irritable. Although persons with this type of dementia are usually old, younger persons also develop the same disease pattern at times ("presenile dementia" or **Alzheimer's disease**). The brain is atrophied and is characterized microscopically by a degeneration of neurons. The cause of senile dementia is not known; some consider it part of the aging process.

Epilepsy

Epilepsy Epilepsy is a physical condition caused by sudden, brief changes in how the brain works. When brain cells are not working properly, a person's consciousness, movements or actions may be altered for a short time. These physical changes are called seizures. Many different seizure types exist. A seizure may block the person's usual awareness, change the way the world looks, or may make bodies move automatically. Sometimes it is a convulsion. Epilepsy is sometimes called a seizure disorder. Epilepsy is usually treated with antiepileptic medications but may also be treated with diet and or surgery. (Epilepsy Foundation of America, 1994)

Huntington's Disease, Parkinson's Disease, Myasthenia Gravis

Other diseases such as **Huntington's disease, Parkinson's disease, or Myasthenia Gravis** are unclear as to specific causes. These diseases result in loss of motion with uncontrollable movements. The treatment is medications which help temporarily.

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DEPRESSION

Depression is a condition that is characterized by a persistent mood state which is anxious, depressed and restless and/or the inability to enjoy pleasurable activities. It is usually intermittent (are periods which are depression free) but some chronic forms exist. It usually starts in a person's late 20's to early 30's but can first appear in childhood and throughout life. The cause is organic. The neurotransmitter most commonly associated with depression is serotonin. Symptoms of major depression include both depressed mood (may appear as irritable mood) and loss of interest or pleasure plus some of the following other symptoms: significant weight change when not trying to change weight; insomnia or over-sleeping; restlessness, or significant loss of movement; fatigue, loss of energy; feelings of worthlessness or excessive guilt; decreased ability to concentrate, or indecisiveness; and, recurrent thoughts of death, suicidal. Considerations when diagnosing depression for persons who use little or no spoken communication are weight changes and sleep disturbances that are fairly easy to detect. Other criteria are more difficult to detect in most people with IQ under 50 because they represent subjective complaints that require good communication skills and the ability to recognize and interpret internal states. Even such features as fatigue and decreased interest may be difficult to detect if the symptom severity is only mild. Often there is reliance on the diagnostician to recognize behavioral patterns that suggest the presence of depression and then testing the diagnosis through treatment response, i.e., the symptoms go away when the person takes antidepressants.

BI-POLAR DISORDER/MANIA

Mania is a state of excessive excitement and enthusiasm. The mood disturbance may be euphoria or irritability or a combination of both. The predominant disturbance is one of pervasive overactivity. **Bipolar** disorder is characterized by recurrent episodes of mania and major depression interspersed with periods of normal affective functioning (i.e., "normal" mood). Manic episodes last from a few days to several months and may be preceded or followed by a depressive episode. A lot less is known about the cause of bipolar disorder but the cause is though to be a combination of organic (biological), psychological and social factors. There is a strong hereditary component. (People with a parent or grandparent with bipolar are 8 to 18 times more likely to have one themselves.). The symptoms of depression are as described above. The symptoms of mania include: A distinct period of abnormally elevated, expansive, or irritable mood along with several of the following symptoms to a significant degree: inflated self-esteem or grandiosity; decreased need for sleep; more talkative than usual, or pressured to keep talking (may be vocalizations, not necessarily words); racing thoughts; distractibility (attention too easily drawn to unimportant or irrelevant stimuli); increased movements, agitation (increase in goal-directed activity at work, school, home or sexually); and, excessive involvement pleasurable activities with potential for painful or dangerous consequences (e.g., engaging in unrestrained buying sprees,

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sexual indiscretions, etc.). Considerations when diagnosing mania for persons with mental retardation and who may also use little or no spoken communication may include: the two-phase course of the illness; overactivity and sleep disturbances were fairly easy to detect because
recognized by most caregivers; and, aggression, self injury and developmental regression are frequently reported in association with bipolar disorder and the developmentally disabled population.

ANXIETY DISORDERS INCLUDING GAD, OCD, AND PTSD

An anxiety disorder is when anxiety becomes so constant and heightened that it is counterproductive and interferes with a person's ability to carry on a normal lifestyle. Anxiety disorders have two components: feelings of being apprehensive and out of control, and the physical symptoms of distress. The out of control feelings are an ever present, dominating state of being which is debilitating and usually results in the person restricting or even eliminating specific activities. Anxiety can effect thinking, perception and attention. Confusion and distortions of reality are common in extreme anxiety. Impedes ability to concentrate and therefore the learning process. Many times anxiety disorders respond exceedingly well to interventions other than medications (e.g. environmental changes, counseling, behavioral approaches). Even if medications are used the person still needs to learn new ways to deal/cope with stress and enjoy life.

Generalized Anxiety Disorder: A disorder involving persistent, unrealistic, or excessive anxiety and worry about life circumstances; an overall anxious mood lasting for more than one month and includes such symptoms as jitteriness, irritability, sweating and feelings of catastrophe concerning oneself or one's family. A person with a GAD is on hyper alert all the time. Because of associated physical symptoms a person with GAD may see many medical doctors. It is still important to rule out medical conditions FIRST. The person may have medical conditions as a consequence of long term anxiety like high blood pressure or ulcers. Symptoms of generalized anxiety disorders (GAD) include both excessive anxiety and worry lasting more than six months and the person finding it difficult to control the worry. It will also be associated with several of the following: restlessness, keyed up, or "on edge"; easily fatigued; difficulty concentrating, mind goes blank; irritability; muscle tension; and sleep disturbances.

Persons with an **Obsessive - compulsive disorder (OCD)** experience recurring thoughts of their own making which are about unpleasant subjects or what are perceived to be unpleasant subjects. They can start the thoughts but not stop them. They deal with these thoughts and the resultant feelings of being out of control by insisting on sameness - washing their hands 23 times before eating, insisting on absolute sameness in routines, staff, activities, etc. If this "routine" or "sameness" changes the anxiety goes out of control and they are out of control. Obsessions are recurrent, persistent thoughts that are intrusive, inappropriate, and cause marked anxiety and distress. thoughts suggested are not worries about real

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them with other thoughts or actions and recognizes thoughts are of his own making. Compulsions are repetitive behaviors in response to obsession, or according to rigidly held rules. The behaviors are aimed at reducing or preventing distress. Obsessions or compulsions take up more than 1 hour per day, or significantly impair social, relational, or occupational functioning.

Post traumatic stress disorder (PTSD) is an anxiety disorder affecting individuals who have experienced profound emotional trauma, such as rape, torture, military combat, a natural disaster. It is characterized by recurrent flashbacks of the traumatic event, nightmares, eating disorders, anxiety, fatigue, forgetfulness and social withdrawal.

Also called post traumatic stress syndrome. PTSD in persons with developmental disabilities has a high correlation with abuse. A person with PTSD has experienced an event above and beyond the ordinary - an event which would be traumatic to anyone. The person remains traumatized years later and the intensity of the feelings do not diminish over time. Some were not even able to deal with it at the time and buried the memories. Then something happens to re-trigger the events and the memories won't remain buried. The person has flashbacks or nightmares. The trigger could be anything - being in same type of room were event took place like bathroom, seeing a child of the same age they were at time of an abusive situation, hearing a sound associated with the situation.

SCHIZOPHRENIA, DELUSIONS, AND HALLUCINATIONS

Schizophrenia is a major mental illness affecting people all over the world. It is a disintegration of one's personality. It is caused by an imbalance of chemicals in the brain which may be brought on by stress. Stress makes the imbalance worse. The common symptoms are a disturbance in thinking, **delusions, hallucinations,** and disturbed behavior and feelings

Group therapy, individual therapy, and leisure awareness groups are helpful in the treatment of schizophrenia. By taking medications prescribed, acquiring therapy, and learning to be more comfortable in stressful situations, the victims of schizophrenia may be successfully control the life-long illness.

TARDIVE DYSKINESIA

Tardive dyskinesia is a potentially permanent side effect of Antipsychotic medications. The symptoms may include involuntary and repetitive movements of the muscles of the face, mouth, tongue, and also trunk and limbs. The development and nature of the symptoms is highly individualized.

The best way to prevent these symptoms is to find the minimum effective dose of antipsychotic medications. The potentially permanent effects of tardive dyskinesia

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may be reversible if they are caught early.

Brain Tumors

Tumors of the brain and spinal cord are not as neatly separated into benign and malignant varieties as are tumors elsewhere. The reason is that small, slowly growing tumors of the brain that would be benign in other locations may readily disrupt vital functions in strategic locations, such as the brain stem, killing the patient.

Other benign brain tumors may occur in deep areas of the brain where the surgeon cannot gain access to them without destroying adjacent vital brain structures. Thus, regardless of whether brain tumors are malignant or benign, they can be very serious.

Neuritis, Neuralgia, Sciatica, and Tic Douloureux

Neuritis, neuralgia, sciatica, and Tic Douloureux are conditions that occur when nerves are inflamed. The symptoms are swelling and intermittent or constant pain. The treatment is medication to reduce pain and swelling.

Guillain-Barre Syndrome

Guillian-Barre Syndrome is a debilitating disease that occurs when infections from other body organs attack nerve cells and interfere with the nervous system. The symptoms are fever, general aches, and weakness in the extremities. The treatment is medication and rest. Some lingering neurological conditions may exist after the disease has run its course.

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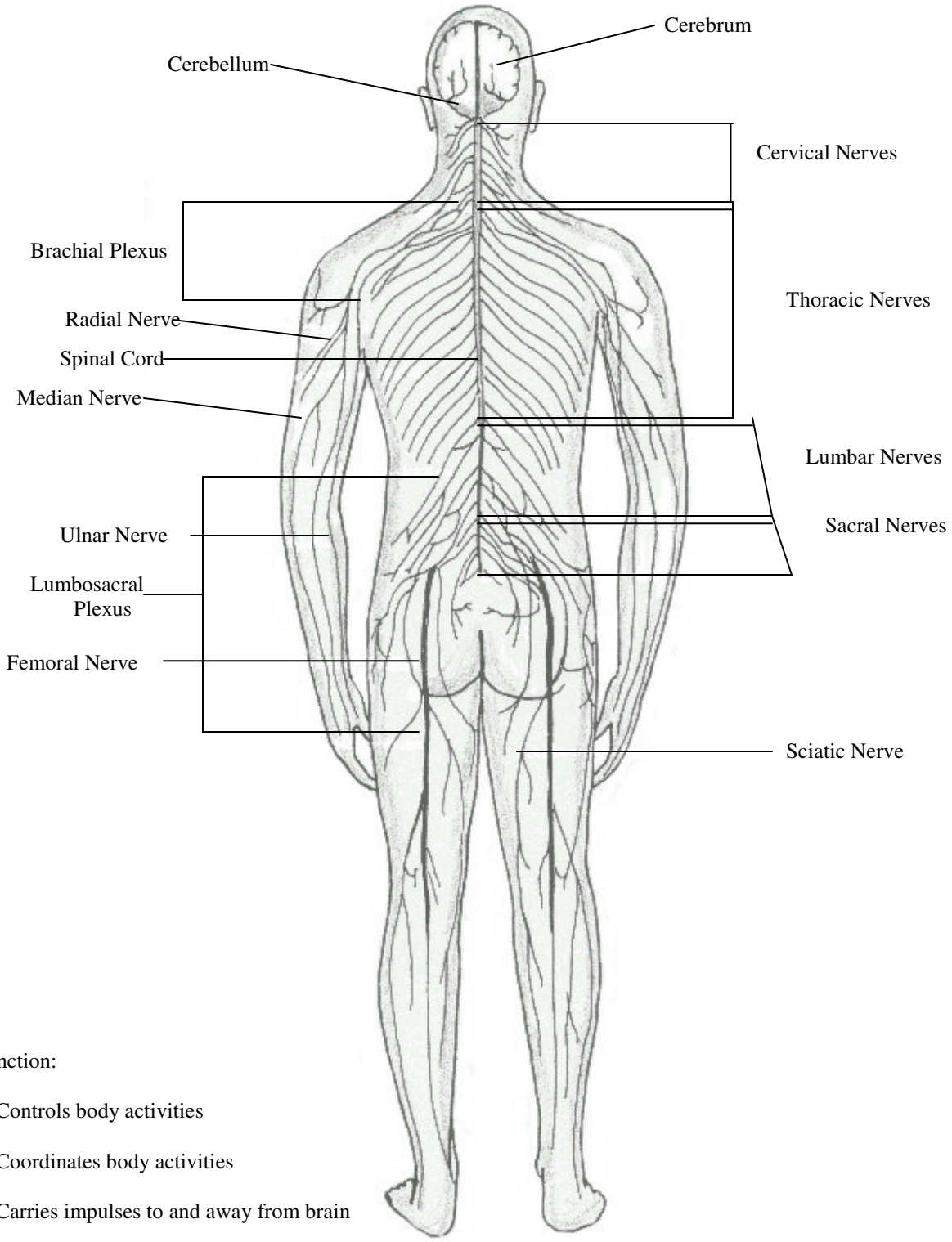
NERVOUS SYSTEM



Function:

1. Controls body activities

2. Coordinates body activities

3. Carries impulses to and away from brain

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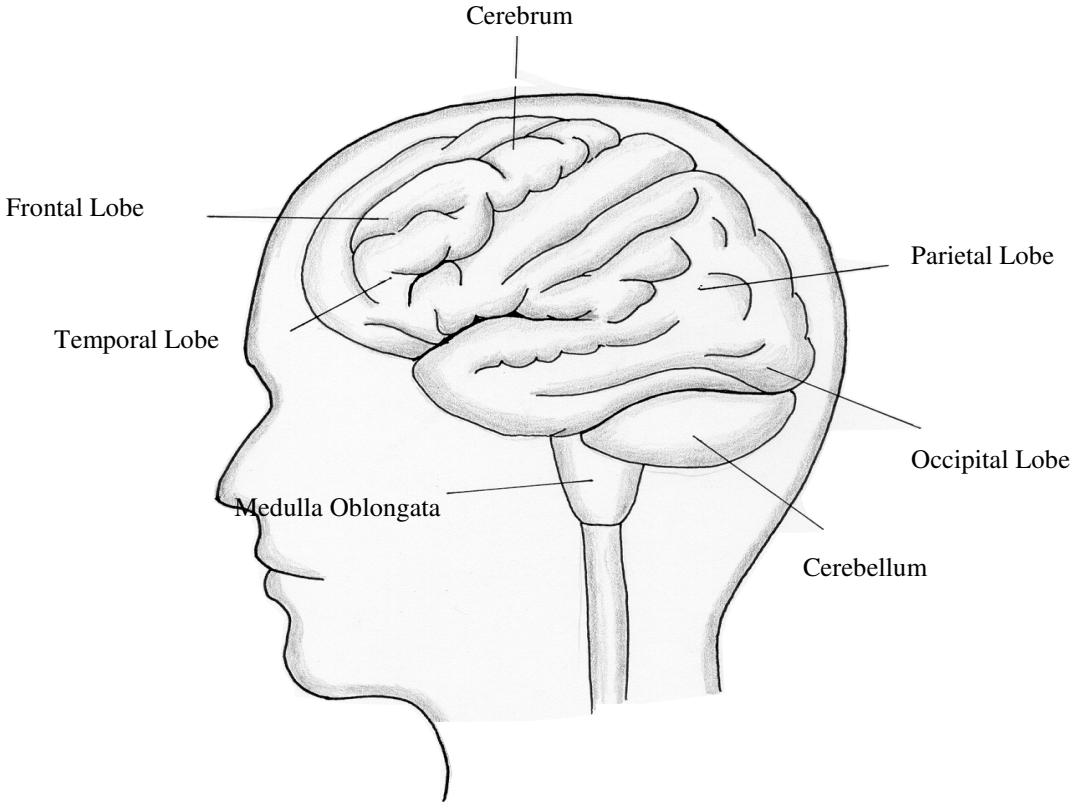
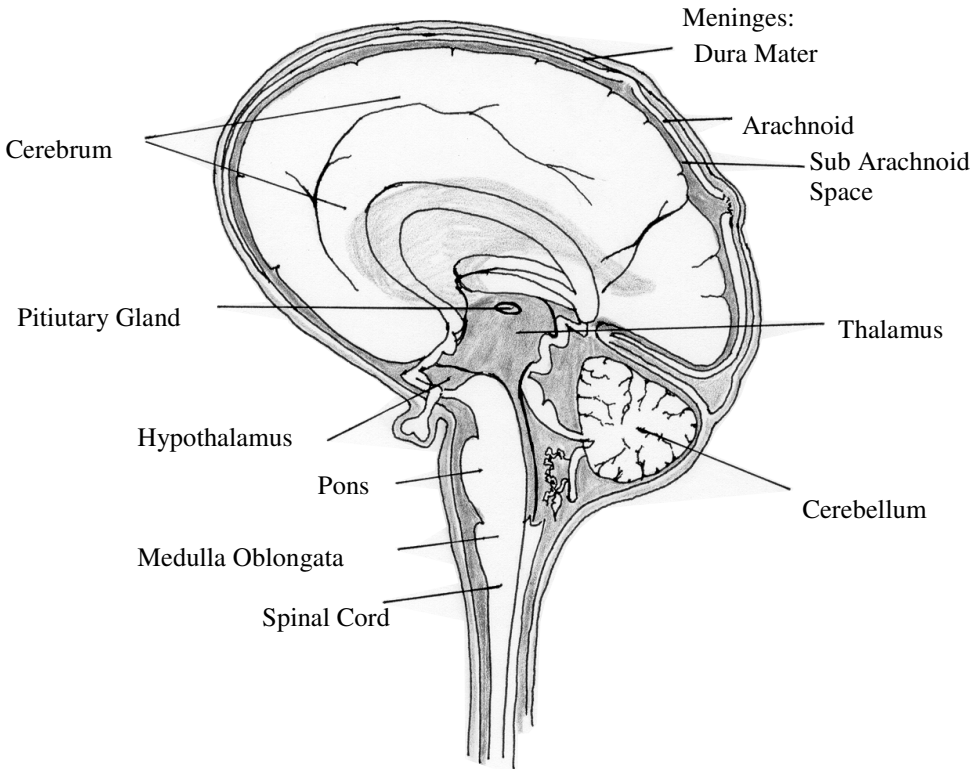
BRAIN AND BRAIN CROSS SECTION VIEW





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ANATOMY OF THE CIRCULATORY (CARDIOVASCULAR) SYSTEM

Circulatory system, Heart, Atria, Ventricles

The **circulatory (cardiovascular) system** has three main parts: circulating fluid (blood and lymph), enclosed tubes or ducts (arteries, veins, capillaries), and a pump (the **heart**), a hollow organ about the size of a fist, is located in the center of the chest with the tip pointing toward the left. It has four chambers. The two upper receiving chambers are called **atria** while the two lower pumping chambers are called **ventricles.**

Physiology of the Circulatory (Cardiovascular) System

The right side of the heart propels blood to the lungs where the blood receives oxygen while the left side of the heart sends oxygenated blood to the body systems. It works continuously and rests only between beats.

Arteries, capillaries, veins

The blood is carried away from the heart to the systems in vessels called **arteries.** The arteries branch into smaller and smaller vessels until they form **capillaries.** In the capillaries, the blood provides oxygen and nutrients to the body cells. The capillaries then get larger and larger to form **veins** and return blood to the heart.

RBC's, WBC's, platelets, hemoglobin

The circulated blood contains **red blood cells (RBC's)**, **white blood cells WBC's)**, and **platelets.** RBC's have **hemoglobin** which contains iron that binds with oxygen. The WBC's fight infection and protect other cells from invading germs. The platelets hold a substance that is essential for clot formation thus the platelets help prevent excessive bleeding.

Myocardium, EKG/ECG

We can measure the efficiency of the cardiovascular system in several ways. The efficiency of the contractions of the **myocardium** or the heart muscle is measured by an electrocardiogram (**EKG** or **ECG)**.

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Pacemaker

If the heart has poor electrical stimulation for rhythmic beats, a **pacemaker** may be inserted to provide an electrical stimulation to the myocardium.

Blood pressure, Sphygmomanometer, Systolic Pressure, Diastolic Pressure, Hypertension, Hypotension

We can also measure how hard the heart is working by checking **blood pressure.** This is accomplished by using an instrument called a **sphygmomanometer.** The **systolic pressure,** or the number at which the first beat is heard, is the measurement of the heart's pressure while it is contracting. The second number, or **diastolic pressure** is the measurement of the heart's pressure in-between beats. The average blood pressure is around 120/80. It is considered high (hypertension) when the reading is usually above 140-160/90-95, and is considered low **(hypotension)** when the reading is 80-90/40-50.

Pulse

Another measurement of the heart function is the taking of a pulse. The **pulse** is simply how fast the heart beats.

Radial Pulse

The **radial pulse,** the most common site, may be felt at the wrist, below the thumb. The average pulse for an adult is between 60-80 beats per minute.

Angina

Angina is caused by myocardial ischemia and exhibits symptoms of pain in the chest and left arm, flushing, perspiration, and a sudden attack of vertigo or dizziness. The treatment consists of administering vasodilating drugs.

Myocardial infarction or "heart attack" results when an artery is occluded (closed) and a decrease of blood to the heart muscle occurs. Areas of the heart may be destroyed and **cardiac arrest** may occur followed by death. The symptoms are crushing pain in the chest, extreme shortness of breath, anxiety, indigestion, shock, and collapse.

Congestive heart failure (CHF) , Edema, Tachycardia

Congestive heart failure (CHF) is caused by weakness of the heart muscle, hypertension, changes in the heart valves due to disease, or poor contractions of the heart. The symptoms may include **edema** or swelling of the feet and legs, coughshortness of breath, fatigue, and **tachycardia** (rapid heart beat). Treatment consists of cardiac medication and diuretics.

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Arrhythmias, Fibrillation, Bradycardia

Heart **arrhythmias** (irregular beats or **fibrillation)** are caused by the impulse center of the heart improperly functioning. This may result from a coronary occlusion or from a toxic reaction to some drugs. The symptoms displayed are irregularities in the rate of and rhythm of the heart, fainting, tachycardia or **bradycardia** (slow heart beat below 60 beats per minute). The treatment is usually medication and rest.

Hypertension

Hypertension or high blood pressure, which can be caused by kidney disease, adrenal gland tumors, brain disease, and heart disease, is aggravated by obesity and smoking. Although it is usually considered the silent killer, symptoms such as dizziness, headache, fatigue, ringing in the ears, and palpitations may be present. The treatment consists of medication, exercise, weight control, and diet.

Thrombosis, Thrombus, Cyanotic, Thrombophlebitis, Embolus

Thrombosis occurs when blood clots form within a blood vessel. This can be due to inflammation or narrowed vessels. The stationary clot is called a **thrombus.** The thrombus blocks the flow of blood to the part of the body served by that particular vessel. The body part becomes pale and cold and sometimes bluish **(cyanotic).** A vessel that is partially blocked by a blood clot may be come inflamed resulting in the condition called **Thrombophlebitis** (phlebitis means an inflammation of a vessel). If a thrombus breaks off into the blood vessel, it can circulate through the blood. It is then called an **embolus.** (An embolus can also be an air bubble or any kind of particle that can block a vessel.) It may travel to another part of the body and cut off the blood circulation to a vital area such as the brain.

Arteriosclerosis, Atherosclerosis

Arteriosclerosis, better known as "hardening of the arteries", is due to changes in the blood vessel walls that cause them to lose their elasticity. The vessel walls can then become clogged with fatty deposits **(Atherosclerosis)** that in turn affects circulation. Arteriosclerosis is a serious problem because it can lead to a heart attack if it affects the coronary arteries. The symptoms are pale or blue skin, muscle cramping, pain in the extremities, or ulcers that may develop on the legs and feet.

Anemia

Anemia is a disorder in which there is a deficiency of RBC's, or a low level of hemoglobin in the RBC's. The deficiency may result from excessive loss or destruction of the red blood cells, or from impaired production of red blood cells or hemoglobin. The treatment may include supplemental iron preparations because iron is the main component of the hemoglobin.

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Major Cardiovascular Symptoms

There are several major symptoms that are usually indicative of cardiovascular problems and should be taken seriously. These symptoms are :

Dyspnea (breathlessness)
Chest pain
Edema
Irregular heart beats (arrhythmia)
Hemoptysis (coughing blood)
Hemorrhage (excessive bleeding)
Lethargy (drowsiness)
Cyanosis
Orthopnea (inability to breath unless chest and head are raised)

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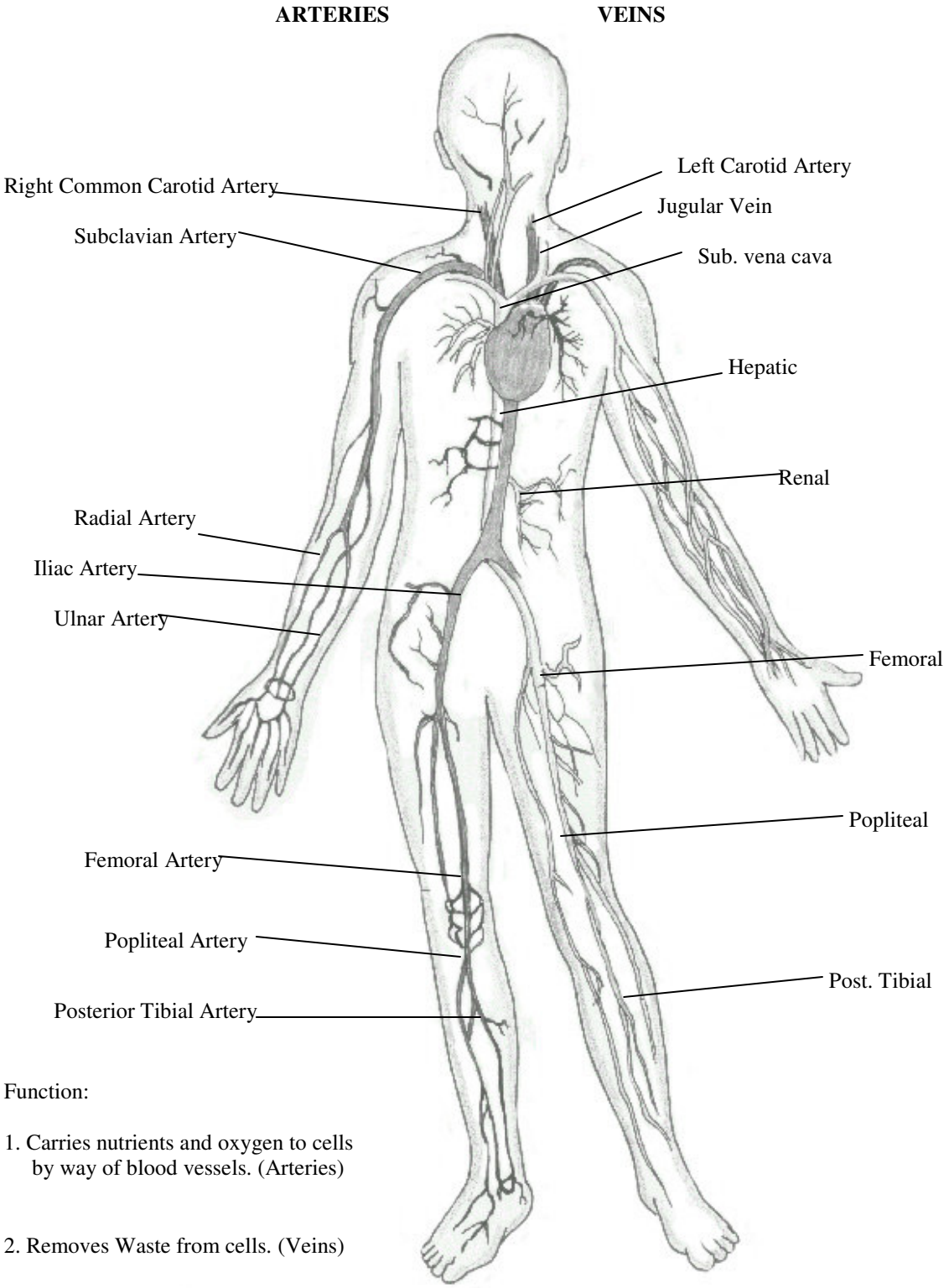
CARDIOVASCULAR SYSTEM

(Circulatory System)



Function:

1. Carries nutrients and oxygen to cells by way of blood vessels. (Arteries)

2. Removes Waste from cells. (Veins)

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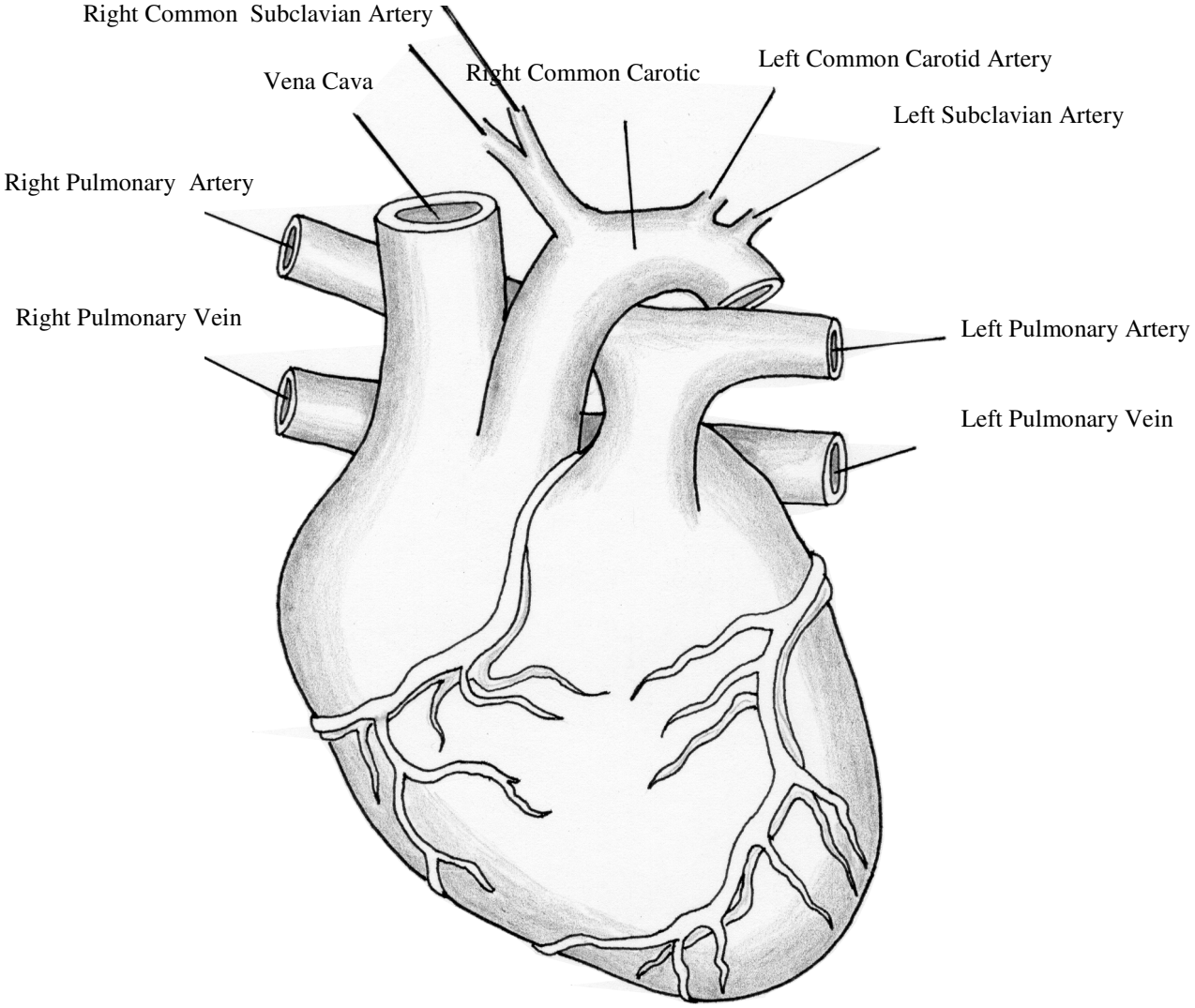

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Anatomy of Lymphatic System

Lymphoid Tissue

The lymphatic system is a series of lymph capillaries, vessels, ducts, nodes, and lymphoid tissues. The **lymphoid tissue** is specialized tissue that includes the tonsils, thymus, gland, and spleen.

Physiology of the Lymphatic System

Lymph Nodes

The tissue fluid drains into the lymph capillaries (where it is now called lymph), then into the lymph vessels, and finally into the lymph ducts which carry it to large blood vessels in the chest cavity. The lymph nodes, a series of filters located in the lymph vessels, destroy bacteria and other foreign particles.

The lymphatic system produces **antibodies** and 25% of the white blood cells. It removes dead blood cells, cancer cells, and disease-causing organisms. At times, the body cannot fight a disease, and antibiotics are ordered to help the processes of **inflammation, infection,** and **immunity.** For example, a severe cut on the hand is followed by infection and inflammation at the injury site. The infection progresses and the axillary (arm pit) nodes become tender and swollen. Antibiotics are ordered to help the body fight the infection.

Pathology of the Lymphatic System

Aids, HIV

A tragic disease that affects the immune system is **Acquired Immune Deficiency Syndrome (AIDS)** which is caused by the Human Immunodeficiency Virus **(HIV).**

See current medication reference for these medications.

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Anatomy of the Respiratory System

Pharynx, Larynx, Trachea, Bronchi, Bronchioles, Avleoli

The respiratory system consists of a series of structures which provide for air passage to and from the lungs. Included in this system are the nose, a series of tubes (**pharynx, larynx, trachea, bronchi, and bronchioles),** and the lungs. The **bronchioles,** branches of the bronchi, are very small tubes inside the lungs which end at **alveoli** (air sacs).

Physiology of the Respiratory System

Diaphragm

The actual inhaling and exhaling of air are mechanical processes determined by differences in air pressure. A dome-like muscle (**diaphragm**) below the lungs acts as a bellow to draw fresh air in, and to push gaseous waste products out. The rhythmic breathing movements are controlled by a complicated feedback system involving the respiratory center in the medulla, an area of the brain. The lungs have thousands of little air sacs called alveoli which absorb oxygen when inhaling and give off carbon dioxide when exhaling. The average respiration rate for adults is 12-16 breaths per minute.

Pathology of the Respiratory System

Pneumonia

Pneumonia is an inflammation of the lungs that is usually caused by bacteria or viruses, or may be caused by aspiration of food, fluid, or gastric contents into the lungs. When severe, pneumonia affects pulmonary function and leads to systemic effects of infection. Frequently those dying of pneumonia have had poor lung function from chronic lung disease, or from heart failure, or have deficient defense mechanisms against infections in general. Others develop pneumonia as a terminal event following lingering illnesses such as cancer. The symptoms of pneumonia are cough, rusty sputum, fever, and cyanosis. The treatment is bed rest and medication.

Emphysema

Pulmonary **emphysema** is caused by smoking, recurrent inflammation, and infections. The alveoli lose their elasticity; therefore, their ability to take in oxygen and give off carbon dioxide is greatly reduced. The unlicensed personnel administering medicationoms are chronic cough and decreased appetite, a barrel chest, pursed lip breathing, and shortness of breath. The treatment consists of antibiotics, bronchodilators, and breathing exercises.

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COPD/COLD

Chronic obstructive pulmonary disease **(COPD)** or chronic obstructive lung disease **(COLD)** is caused by emphysema, chronic bronchitis, asthma or a combination of these. These symptoms are dyspnea (difficulty breathing), productive cough, frequent colds, and respiratory failure. It is incurable but the condition may improve with breathing exercises, bronchodilators, and expectorants.

Carcinoma of the bronchi is the most common type of lung cancer. It arises in the major bronchi as a result of long-standing irritation, such as smoking. Symptoms are severe chronic cough, dyspnea, and pain. Treatments are surgery, radiation, and chemotherapy.

Asthma

Asthma is a prevalent disease that is extremely debilitating in some persons. Asthma is usually caused by allergens, such as pollen, which cause bronchial spasm in sensitized persons. Symptoms are wheezing, increased pulse rate, and difficulty exhaling. Treatment is medication to dilate the bronchioles.

Pleurisy

Pleurisy is an inflammation of the linings (pleura) of the lungs and lung cavities. Symptoms are knife-sharp pains or "stitches" in the chest area causing dyspnea and a mild fever. Treatment consists of bed rest and antibiotics.

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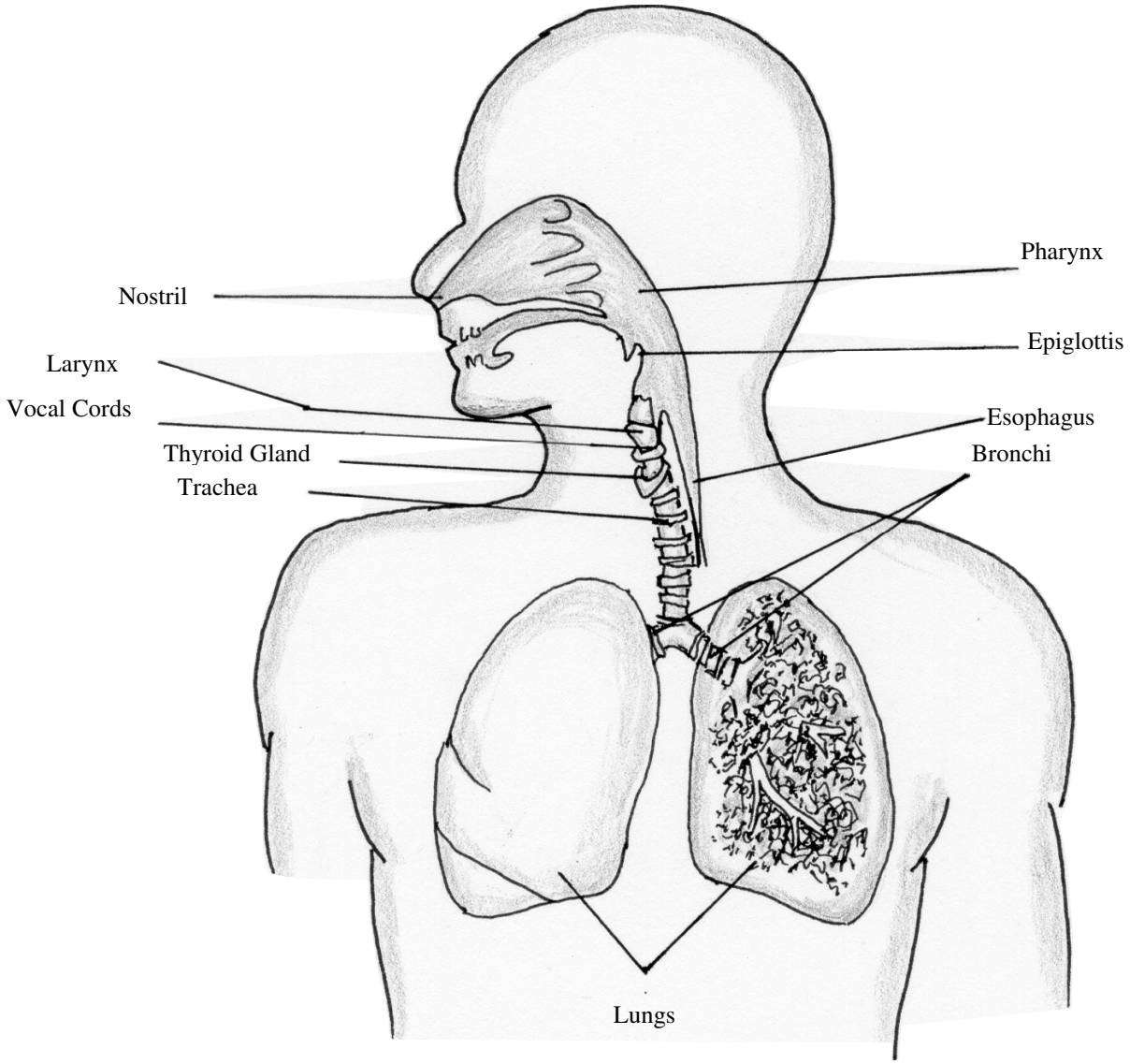
THE RESPIRATORY SYSTEM



Function:

1. Provides oxygen to cells

2. Removes waste in form of carbon dioxide

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ANATOMY/PHYSIOLOGY OF THE REPRODUCTIVE SYSTEM

Sperm, Testes, Urethra, Penis, Ovaries, Fallopian Tubes, Embryo, Placenta, Fetus, Menstruation

The male produces **sperm** in the **testes** which are suspended outside the body. The sperm are conducted via small ducts to the **urethra,** which runs through the **penis.** The penis is used to inject the sperm into the vagina of the female. The female produces **eggs** in the **ovaries**. These are discharged at the rate of one, or more, per month. The egg travels down the **fallopian tube** where fertilization or union of sperm and egg usually takes place. During this time, the lining of the uterus is thickening as it prepares to receive a fertilized egg. If a developing **embryo** arrives in the uterus, it implants itself in the lining, establishes a **placenta,** and grows as a **fetus.** If, however, the egg is not fertilized, the uterine membrane is discarded through the process of **menstruation.** A new membrane is then developed the next month.

Female Genital Organs

Female genital organs include the **vulva, (labia majora, labia minora, clitoris) vagina, uterus, (cervix and body) fallopian tubes, and ovaries.** The body of the uterus is a muscular organ with a glandular lining. The lining is the site of **implantation** and growth of a fertilized egg. The muscular wall stretches and grows during pregnancy, and its contractions accomplishes childbirth.

The fallopian tubes transport ova (eggs) from the ovary to the body of the uterus.

Menarche, Menopause

A complex endocrine control system is responsible for the changes in **menarche** (onset of menstruation), pregnancy, and **menopause** (cessation of menstruation).

Male Genital Organs

Diseases of the male genital organs may be discussed with diseases of the urinary tract because of the close anatomic relationship of the male genital organs and the lower urinary tract. However, for purposes of separation the testes and prostate gland will be discussed here.

Testes

The **testes** consist basically of the tubules where sperm are produced. Sperm are stored in the tubules and are propelled along during ejaculation by muscular contractions.

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Prostate

The **prostate gland** encircles the neck of the bladder like a donut. Prostatic secretions comprise the major portion of semen and have high antibacterial activity.

Pathology of the Female Reproductive System

The most frequent health problems of the female genital system relates to complications of pregnancy and delivery, screening for malignancies, providing safe birth control, relieving severe menopausal symptoms and treating vaginal infections.

Vaginitis is caused by poor hygiene, and changes in the lining of the vaginal tract after menopause. Symptoms are burning and itching of the genital area usually accompanied by a white discharge. Treatment consists of vaginal creams, jellies, and suppositories, as well as keeping the area clean and dry.

Menopause, a cessation of menstruation, is not a disorder. However, if symptoms, such as intense "hot flashes" or profound sweating and chills are severe, low doses of estrogen therapy may be prescribed.

Hysterectomy

Cancer of the uterus is not uncommon and will result in the removal of the uterus **(hysterectomy).** Hormonal replacement may then be ordered to alleviate surgical menopausal symptoms.

Pathology of the Male Reproductive System

BPH

One of the most common disorders in older men is **benign prostatic hypertrophy (BPH).** It is caused by an enlargement of the prostate gland. The symptoms are difficult or painful urination, frequent urination of small amounts, and the inability to urinate. The treatment consists of surgery to remove all or part of the prostate gland and medication.

Cancer of the prostate is increasing in incidence, and is now appearing at a younger age. It is very difficult to diagnose and is, unfortunately, frequently found at a late state of development. It is essential for males to self-examine their scrotum for lumps and to receive an examination from their physician regularly. Treatment consists of removal of the prostate and chemotherapy or hormone therapy.

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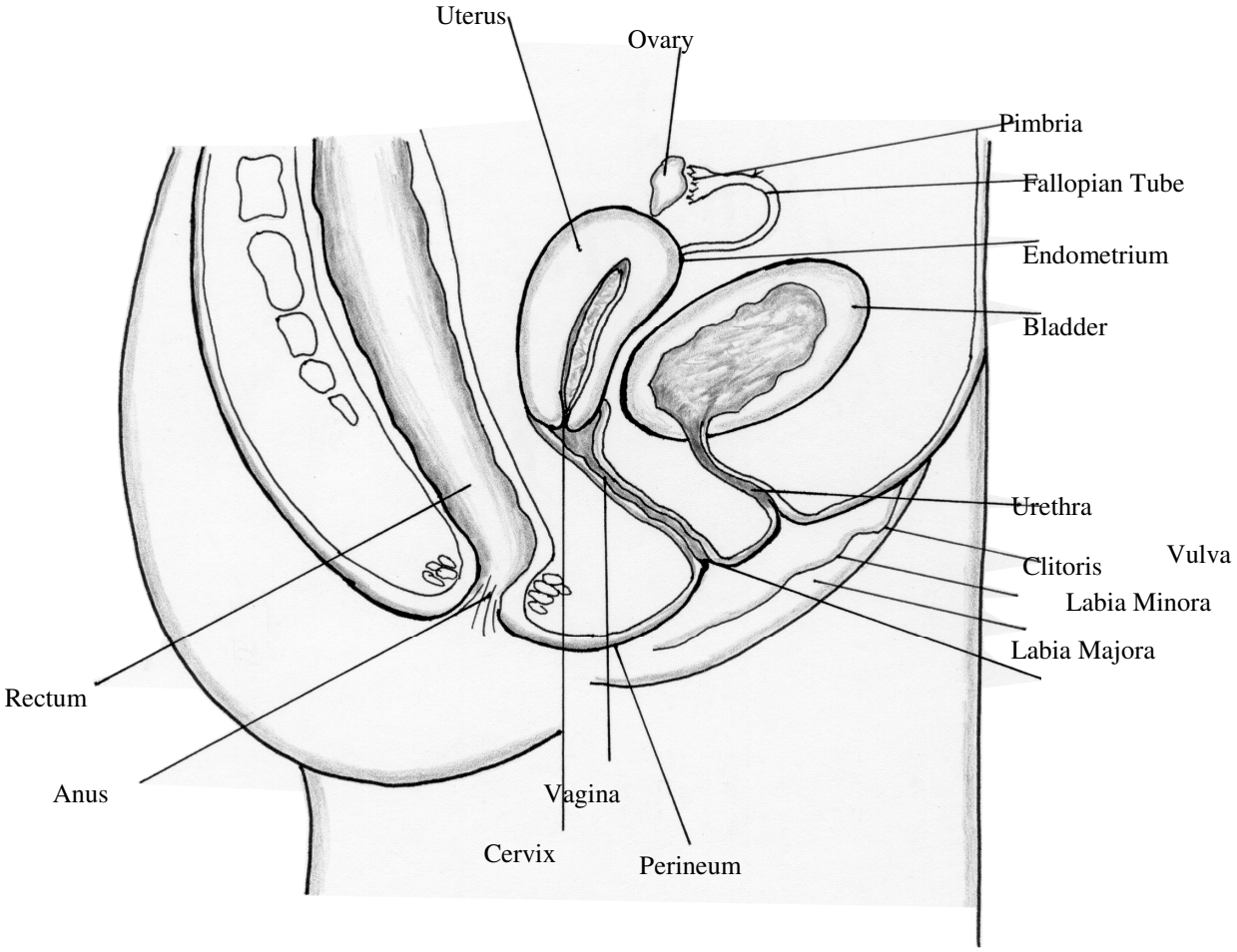
FEMALE REPRODUCTIVE SYSTEM



Function:

1. Produce female hormones

2. Produce female sex cells

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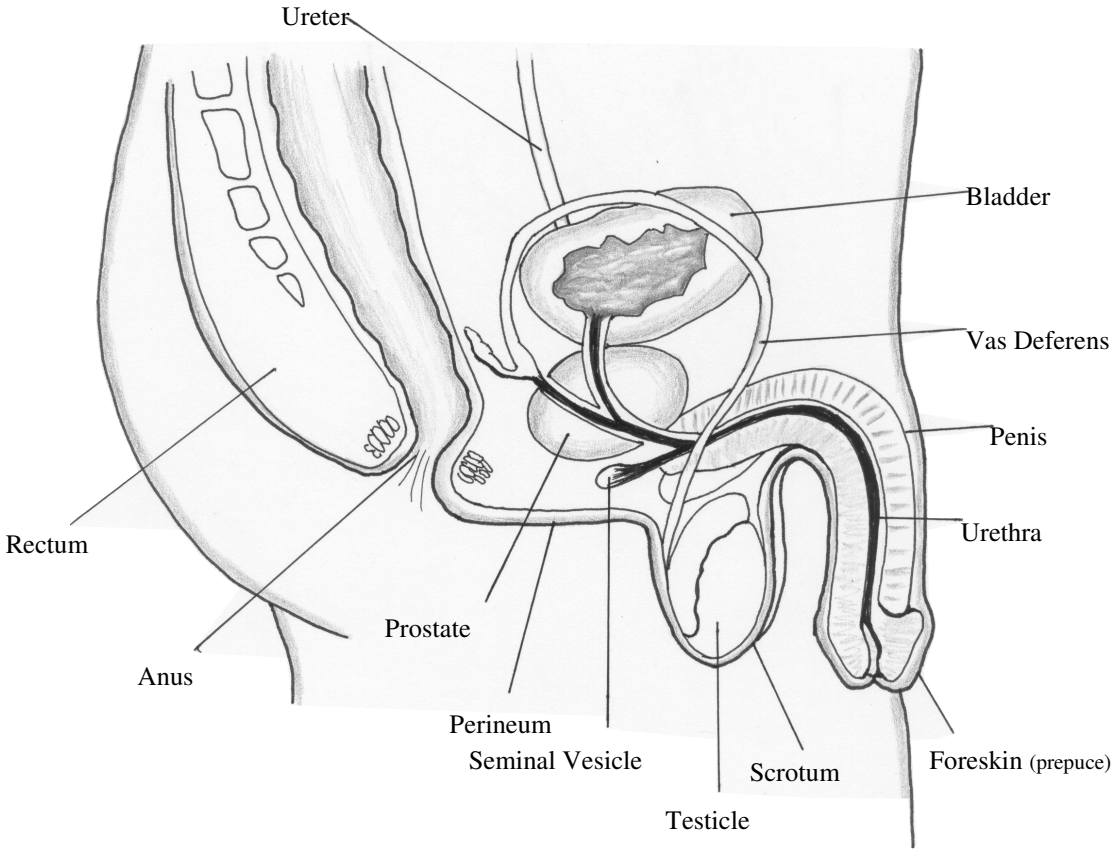
THE MALE REPRODUCTIVE SYSTEM



Function:

1. Produce male hormones

2. Produce male sex cells

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Anatomy of Urinary System

Kidneys, ureter, urethra, urinary bladder

The urinary system is composed of two **kidneys,** each having a **ureter** or a duct leading to the urinary bladder. From the bladder, leading to the outside, is a single tube called the **urethra**. The kidneys are bean-shaped and are located on either side of the spinal column near the small of the back. The ureters are small, thin, ducts about 10-12 inches long. The **urinary bladder** is a hollow, sac-like structure in the pelvis.

Physiology of the Urinary System

Urine

The kidneys, very complex structures, have over one million filters each to clean every drop of blood in the body (done about 4-6 times per day). They remove excess liquids and unused substances from the blood and form a waste called urine. **Urine,** which is constantly being formed, is held in the bladder until the urge to void occurs. The bladder has muscular walls which can distend to hold 500 cc's or more. A person usually has an urge to void when 250-300 cc's are in the bladder. It is normally clear, odorless and the color of amber.

Pathology of the Urinary System

Frequency, Dysuria, Nocturia, Hematuria, Proteinuria

Bacterial infections and cystitis are the most frequent problems affecting the kidneys and the lower urinary tract. The symptoms include **frequency** (voiding in small amounts **dysuria** (painful or burning urination), **nocturia** (increased night urination), **hematuria** (blood in the urine), **proteinuria** (protein in the urine), and sometimes fever and chills. Treatment includes urinary antiseptics, antibiotics, cranberry juice, avoiding coffee, tea, and carbonated beverages, and increasing fluid intake (desired fluid is plain water).

Pyelonephritis, Oliguria, Anuria, Dialysis

Another disease affecting the kidneys is **pyelonephritis.** It may result from an infection elsewhere in the body and is frequently the disease responsible for renal failure. The symptoms include chills, fever, nausea, cloudy urine, back pain, **oliguria** (decreased urine) or possibly **anuria** (absence of urine) in severe, acute or final stages. Treatment consists of medication and possible kidney **dialysis.**

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Edema, Dyspnea, Orthopnea

The accumulation of excess fluids **(edema)** may be due to the inability of the body to rid itself of the fluids due to kidney or heart failure. The symptoms are swelling of the hands, feet, and legs, and/or inability to breathe with exertion **(dyspnea)** or when lying down **(orthopnea).** The treatment consists of administering diuretics.

Urinary Retention

Urinary retention is also a pathological condition of the urinary tract. It may be caused by benign prostatic hypertrophy, (BPH, discussed in the reproductive system), bladder or prostate cancer, or due to an unwanted effect from medications. The symptom is simply the inability empty the bladder. The treatment consists of medication, catheterization, or possibly surgery.

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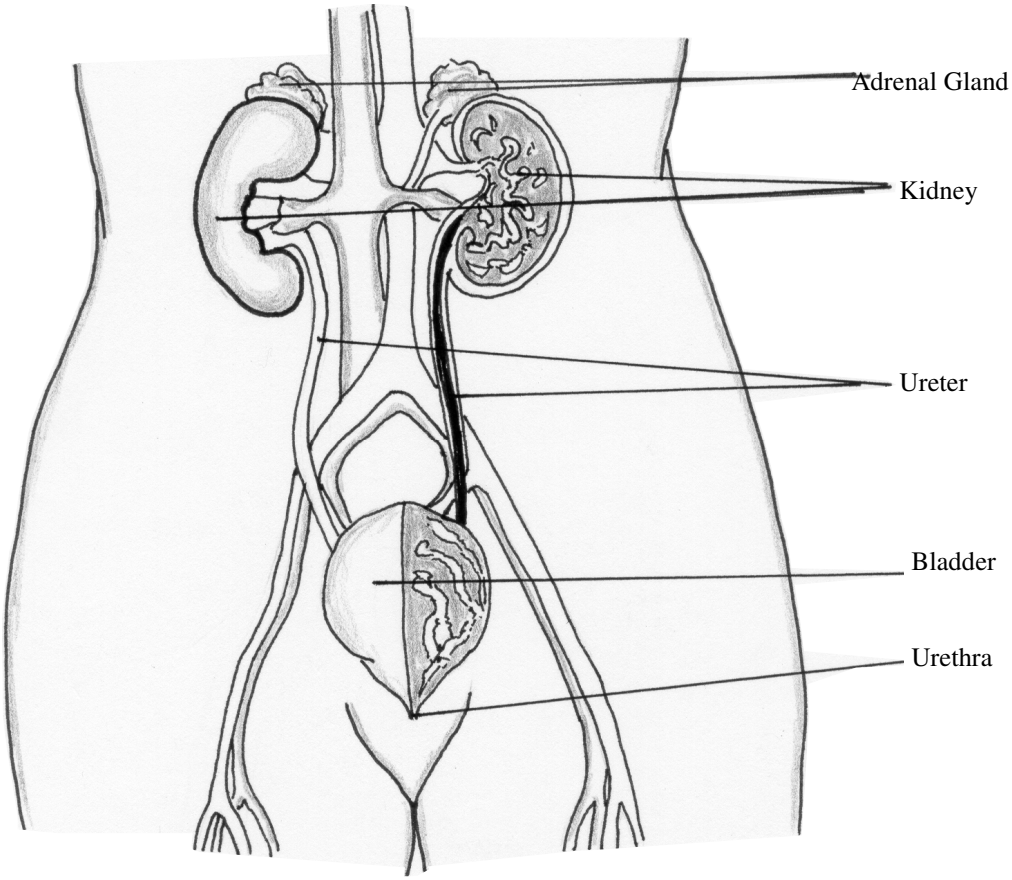
THE URINARY SYSTEM



Function:

1. Produces urine

2. Removes wastes from blood stream

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Anatomy of the Gastrointestinal (Digestive) System

Alimentary Canal

The gastrointestinal tract, also known as the alimentary canal, is a passageway for food from the mouth to the anus. The structures of the **alimentary canal** are the mouth, pharynx, or throat, the esophagus connected to the stomach, the small intestine, the large intestine and the rectum. All are lined with mucosa.

The accessory organs, near the alimentary canal, consist of the liver, gallbladder, and pancreas and are considered to be a part of the gastrointestinal system.

Physiology of the Gastrointestinal (Digestive) System

Digestion

Digestion, the break down of food, starts in the mouth where saliva and chewing begin the process. The swallowing takes place in the throat propelling the food through the esophagus to the stomach.

Stomach, Peristalsis, Small Intestine, Large Intestine

The **stomach** secretes enzymes, hydrochloric acid, and other juices to churn and mix well the food, continuing to break it down, readying it for passage in the small intestine for absorption. A wave-like muscular movement, **peristalsis,** propels the food from the stomach through the small intestine. Villa (finger-like projections) in the lining of the small intestine absorb the nutrients needed for our body. The **small intestine,** is the most important organ for digestion. Waste products then continue via peristalsis to the **large intestine,** where waste and mineral salts are withdrawn. The solid waste material, feces, is stored and eventually eliminated, or excreted via the rectum. The gastrointestinal system and the urinary system are referred to as the excretory systems.

Liver

The **liver** secretes bile that helps break down fats. The liver is the largest glandular organ in the body. Of the many metabolic functions of the liver, the most important are: 1) Production of bile salts to help digest fats, 2) Excretion of bilirubin (a product of red cell break down), 3) Production of certain vitamins such as E, and K, 4) Production of serum protein and, 5) Detoxification of drugs and poisons.

Gallbladder

The bile ducts of the liver form a long tree-like network with the common bile duct emptying into the small intestine at the same point as the pancreatic duct. The **gallbladder,** an outpouching of the common bile duct, acts as a storage reservoir for bile. The gallbladder empties its contents into the intestine at a time (after meals) when bile salts are needed for fat absorption.

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Gallbladder

The bile ducts of the liver form a long tree-like network with the common bile duct emptying into the small intestine at the same point as the pancreatic duct. The **gallbladder,** an outpouching of the common bile duct, acts as a storage reservoir for bile. The gallbladder empties its contents into the intestine at a time (after meals) when bile salts are needed for fat absorption.

Pancreas

The **pancreas** is a long, narrow organ lying in the mid-abdomen. The pancreatic duct runs the length of the pancreas and empties into the small intestine after joining the bile duct.

Islets of Langerhans

Scattered among the pancreatic glands are clusters of endocrine cells known as the **islets of Langerhans** which produce insulin. Removal of the entire pancreas or severe destruction will produce diabetes due to a lack of insulin. Insulin therapy is therefore vital to life.

Pathology of the Alimentary Canal

Constipation

Constipation refers to infrequent and/or difficult evacuation of feces. The cause of constipation is frequent inactivity, poor diet, or a change in diet and medication. Symptoms are painful elimination, impaction, and continuous diarrhea around the impaction. Treatment consists of juices, increased fluids, increased fiber in diet, if ordered, and medication.

Diarrhea

Diarrhea, which refers to frequent and liquid stools, may be caused by anxiety or may be due to organic disease. Symptoms are cramping, loss of body fluids, and dehydration. Treatment consists of antidiarrheal medication and in some cases a change in diet, if ordered.

Viral Enteritis

There are many diseases of the alimentary tract that cause temporary or prolonged disability but are rarely fatal. The most common of these is **viral enteritis** (intestinal flu). Flu symptoms include nausea, vomiting, and diarrhea. Treatment may consist of antiemetics medications, bed rest, and temporary change in diet, if ordered.

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Inguinal Hernia

Inguinal hernia is an outpouching of the abdominal cavity into the groin that may trap loops of bowel. Symptoms are pain upon movement, and a tender, swollen abdomen over the area of hernia. Treatment consists of an abdominal support and surgery, if needed.

Appendicitis

Acute **appendicitis** is the most frequent indication for operations on the alimentary tract itself. Symptoms include intense pain in the right lower abdomen, nausea, vomiting, maybe fever, and usually an increased white blood count. The treatment is an appendectomy.

Hemorrhoids

Diseases of the rectum are common and an important course of discomfort to patients; mild rectum problems include hemorrhoids.

Dyspepsia

Dyspepsia is caused by changes in the lining of the stomach and an increase in the amount of gastric secretions. The symptoms are heartburn and feeling of fullness in the stomach. Treatment consists of medication.

Ulcers

Ulcers may be found in the stomach or the small intestine and are causes by repeated irritation of the lining until a sore occurs. Symptoms induce intolerance to certain foods, hematemesis (vomiting of blood), melena (black, tarry stools), and pain in the stomach. Treatment consists of diet change (with order), and medication.

Gastroesophageal Reflux Disease (GERD)

Gastroesophageal reflux (GER) or heartburn is the backward flow of stomach contents into the esophagus. It is described as "a harsh, burning sensation in the upper abdomen" and "the feeling can radiate through the chest and into the throat and neck" (Sutherland,1991). It is the most common condition of the esophagus and may be accompanied by vomiting, rumination, chest pain or upper gastrointestinal (GI) bleeding. It is potentially one of the most serious conditions of the gastrointestinal tract experienced by both children and adults with developmental disabilities.

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Ulcrative Colitis

Ulcerative Colitis, a debilitating disease, may be intensified by stress but basically its cause is unknown. Symptoms include alternate diarrhea and constipation, cramping, and weight loss. Treatment consists of anticholinergic drugs and bulk laxatives.

Cancer, Dysphagia, Esophageal Varices

Cancers of the alimentary canal is an extensive health care problem, and, occasionally, the first symptoms noted is persistent **dysphagia** (difficulty swallowing). **Esophageal varices** may also be seen in the chronic alcoholic. Bleeding occurs from the blood vessels in the esophagus and is life-threatening. Treatment is complex and involves several areas of medical practice.

Pathology of Gallbladder/Liver

A common problem occurs in the gallbladder, namely, the formation of **gallstones.** Pain, intolerance to certain foods, jaundice (yellow skin), are the symptoms. Treatment is change in diet when ordered and surgery.

Viral Hepatitis

Viral hepatitis is probably the most common liver disease. The causes are ingestion of contaminated food, contaminated needles, contact with infected blood, serum, semen, or feces. Symptoms are generalized and accompanied by fever. Jaundice is usually prevalent. Treatment consists of medication, fluids, and rest.

Cirrhosis

Cirrhosis refers to the liver becoming composed of fibrous tissues; it is the characteristic lesion of serious chronic liver disease regardless of cause. Chronic alcoholism is the most common cause of cirrhosis, but only some chronic alcoholics develop cirrhosis.

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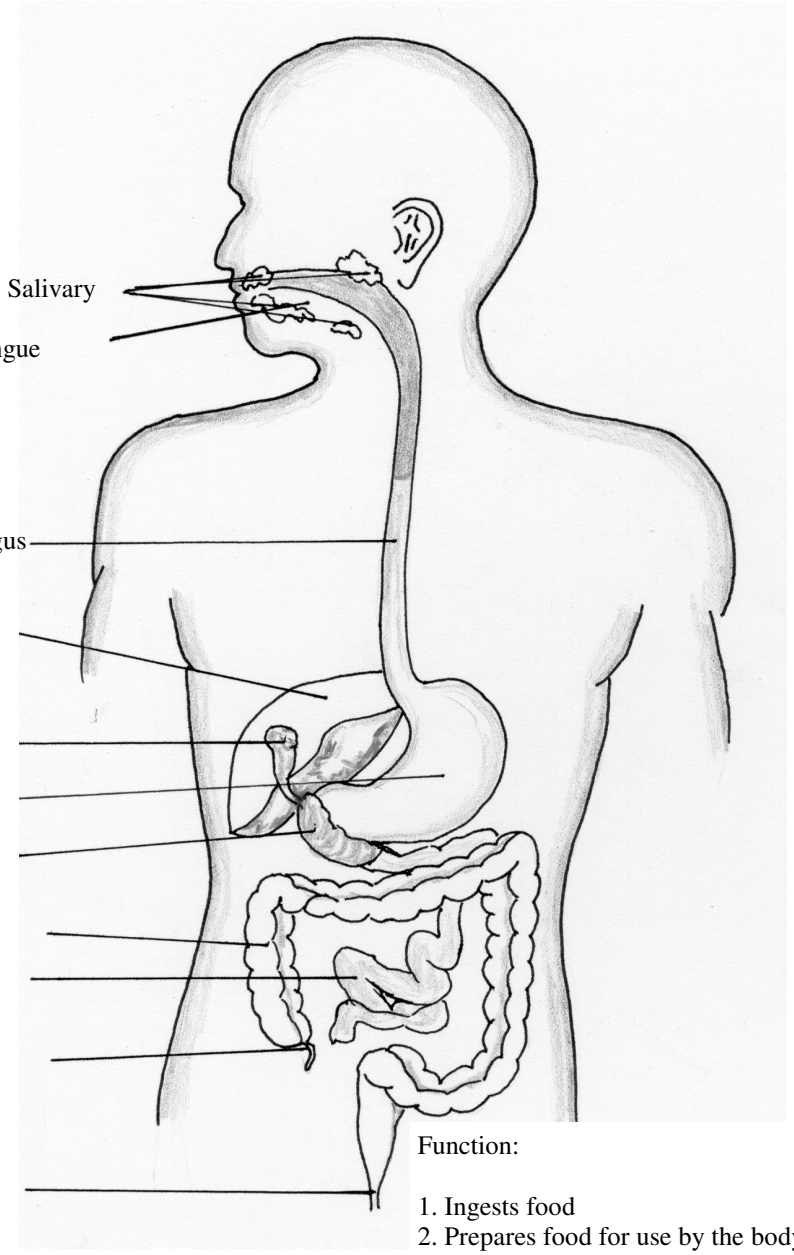
GASTROINTESTINAL SYSTEM



Function:

1. Ingests food
2. Prepares food for use by the body
3. Excretes wastes

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Anatomy/Physiology of the Endocrine System

Hormones

The endocrine system is the second system (in addition to the nervous system) coordinating body activities. The endocrine system, or ductless gland system, produces chemicals **(hormones)** that are secreted directly into the blood stream; they circulate in the blood. These hormones can be compared to chemical messengers, each of which has a specific target organ or organs which it influences. In man, the endocrine system consists of at least 10 such glands, of which eight will be discussed:

Thyroid gland
Location: Front of neck, below voice box.
Functions: Produces several hormones such as thyroxine that control the rate of metabolism, or burning of food.

Parathyroid glands
Location: On thyroid.
Functions: Produce a hormone (parahormone) that controls a calcium use.

Adrenal gland
Location: On top of each kidney.
Functions: Produce hormones that prepare the body for "fight or flight" in cases of emergency. Also controls metabolism of proteins, fats, carbohydrates, influences fluid and mineral balance, and reduces inflammation.

Pancreas
Location: In abdomen, just under the stomach.
Functions: Produce hormones, (one is insulin) that are involved in controlling sugar metabolism.

Pituitary gland (also called the master gland)
Location: Base of brain.
Functions: Regulates growth, reproduction, muscle contraction, and blood pressure.

Gonads or "sex glands" are the testes in males and the ovaries in females

Location: Male - in scrotum. Female - in pelvis.
Functions: The gonads produce hormones that regulate maturation and reproductive system functioning.

Thymus

Location: Behind breastbone (sternum)
Functions: In children, this gland is very large and secretes compounds useful in

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protecting from disease; it is responsible for early immunity. As the child matures, this gland diminishes, until, in adulthood, it has almost disappeared.

Hypothalamus

Location: Brain, above pituitary.
Functions: Monitors hormone levels in the blood and controls the production of pituitary hormones.

Pineal

Location: Slightly above and behind the pituitary.

Diabetes Mellitus

Diabetes mellitus is a chronic condition that makes the body unable to properly use carbohydrates (starches and sugars), causing it to rely too heavily on protein and fat for fuel. It is a condition which affects many organs and bodily functions. Diabetes mellitus or what is commonly called diabetes, is characterized by glucose (or what we commonly call sugar) in the blood due to a deficiency of insulin or ineffective insulin secretion.

Insulin is a hormone produced in our pancreas which is secreted into the blood stream. Insulin is released in response to blood glucose (blood sugar) levels. Insulin is essential in breaking down sugars and starches into glucose, our body's principle fuel. Insulin is also essential in transporting this fuel through the walls of cells membranes providing them access to adequate nourishment. Without adequate insulin the cells in our bodies cannot use the fuel needed for their survival.

Goiter (Enlargement of thyroid) is also common.)

Most endocrine disorders will reveal themselves as either a "hypersecretion" (too much) or a "hyposecretion" (too little) of a particular hormone. The diagnosis depends upon correctly matching the person's symptoms and signs with hormone dysfunction and with laboratory confirmation of overproduction or underproduction of a particular hormone. For example, overproduction of insulin will decrease blood sugar levels, and the person will have measurable symptoms and signs of hunger, pallor, shakiness, and decreased ability to perform mental tasks. On the other hand, too little insulin (diabetes mellitus) leads to increased blood sugar levels, and the person presents with excessive urination (polyuria), and excessive drinking, because the body is attempting to excrete the excess glucose.

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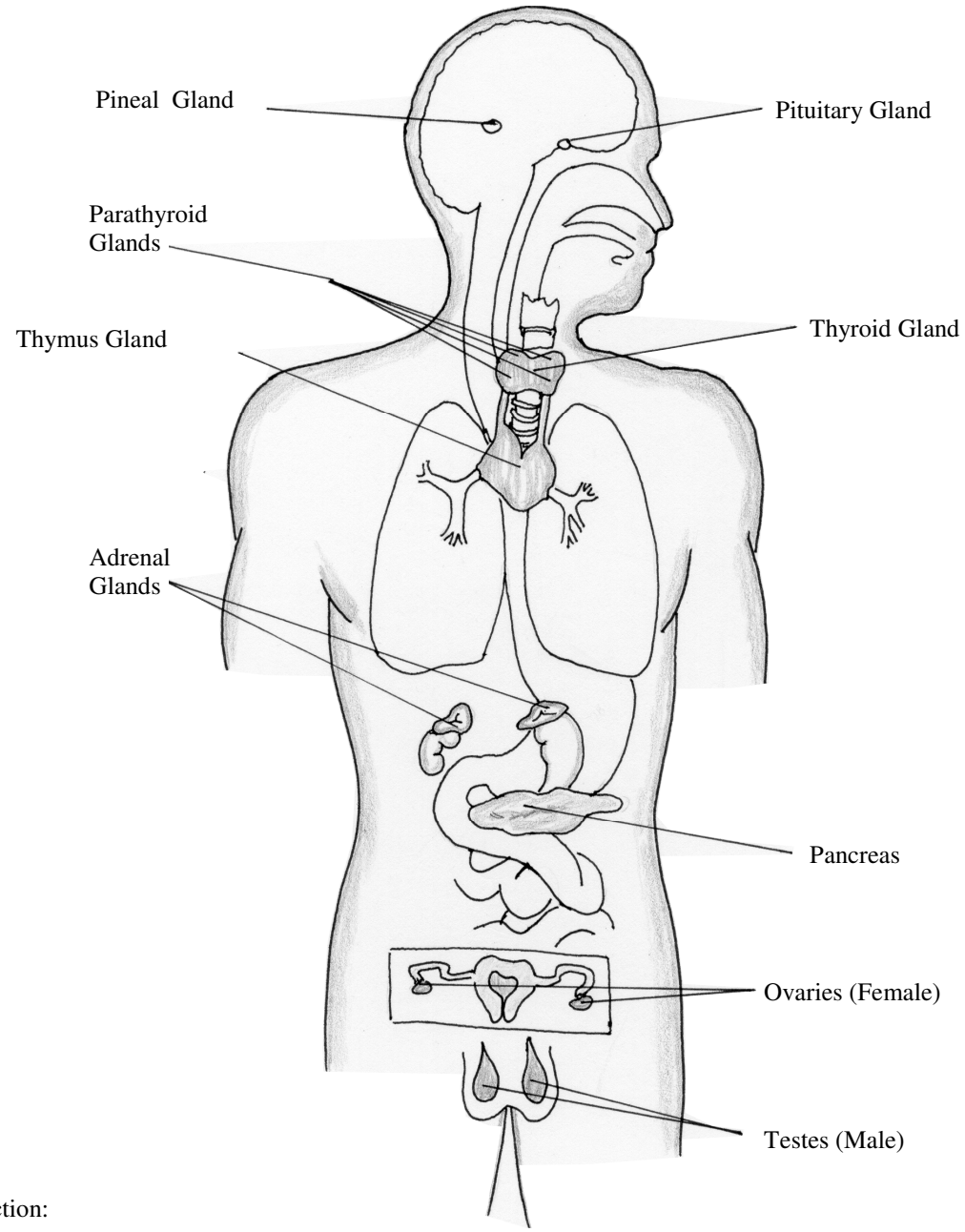
THE ENDOCRINE SYSTEM



Function:

1. Secretes hormones to regulate body process of growth and development

2. Regulates body functions, metabolisms, and reproduction

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Anatomy/Physiology of Integumentary (Skin) System

Epidermis, Dermis, Subcutaneous

The skin consists of an outer covering of **epidermis;** an underlying layer of connective tissue **(dermis)**, that contains the hair follicles, sweat glands, blood vessels, and sensory nerves; and a deep layer of adipose (fatty) tissue **(subcutaneous tissue).**

The skin functions as a barrier between the body and its external environment, protecting the body from injury to external forces and preventing excessive loss of body fluids. The skin also constitutes a major sense organ; sensations of touch, temperature, pressure, and pain are essential for man to maintain orientation with his environment. In addition, the skin plays a vital role in regulation of body temperature, both by controlling the amount of blood brought near the surface for heat exchange and through the process of sweating, which lowers skin temperature.

Pathology of the Integumentary System

Dermatitis

Dermatitis may be caused by an allergic medicating symptoms. response to food, drugs, insect stings or plants. Symptoms are usually a rash causing intense itching. The treatment consists of

Scabies

Scabies are caused by mites that tunnel under the skin. Contamination occurs from infested clothing, linen, or close contact with an infested person. Symptoms are intense itching, getting worse at night. Thread-like blisters appear where the mite is located. Treatment consists of creams or lotions called scabicides.

Pediculosis

Pediculosis is caused by lice which infest different body areas, and is spread through direct body contact by using contaminated personal articles like combs or hats. The symptoms include itching of scalp or body, with small red lumps on shoulders, trunk or buttocks. Treatment consists of medication shampoo, ointments, or lotions.

Psoriasis

A genetic tendency, stress, or trauma may be causes of **psoriasis.** Red patches with silvery scales that shed and bleed are the symptoms. Treatment consists of topical medication.

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Eczema

Eczema may be due to an allergic reaction, sweating, or stress. Symptoms include itching and crusting of exudate over the skin. Treatment consists of removing the cause of irritation and applying topical medications to the area to control the itching.

Burns

Burns are caused by accidental injury. Symptoms are red skin (1st degree), blistered skin (2nd degree), charred or pearly white skin (3rd degree). Destruction of large areas of epidermis is potentially fatal because of the resulting loss of body fluids, and the high risk of secondary infection from bacterial contamination. Treatment depends on degree and type of burn.

Decreased circulation, because of continuous pressure on a body area, is a cause of **pressure areas** (decubitus ulcers).

Stage I - red area
Stage II - blistered area or break in skin
Stage III - tissue invasion and dead tissue
Stage IV - muscle and bone involvement

Treatment, which depends on the degree of ulceration, consists of debriment, medications or light applications of various medicated ointments.

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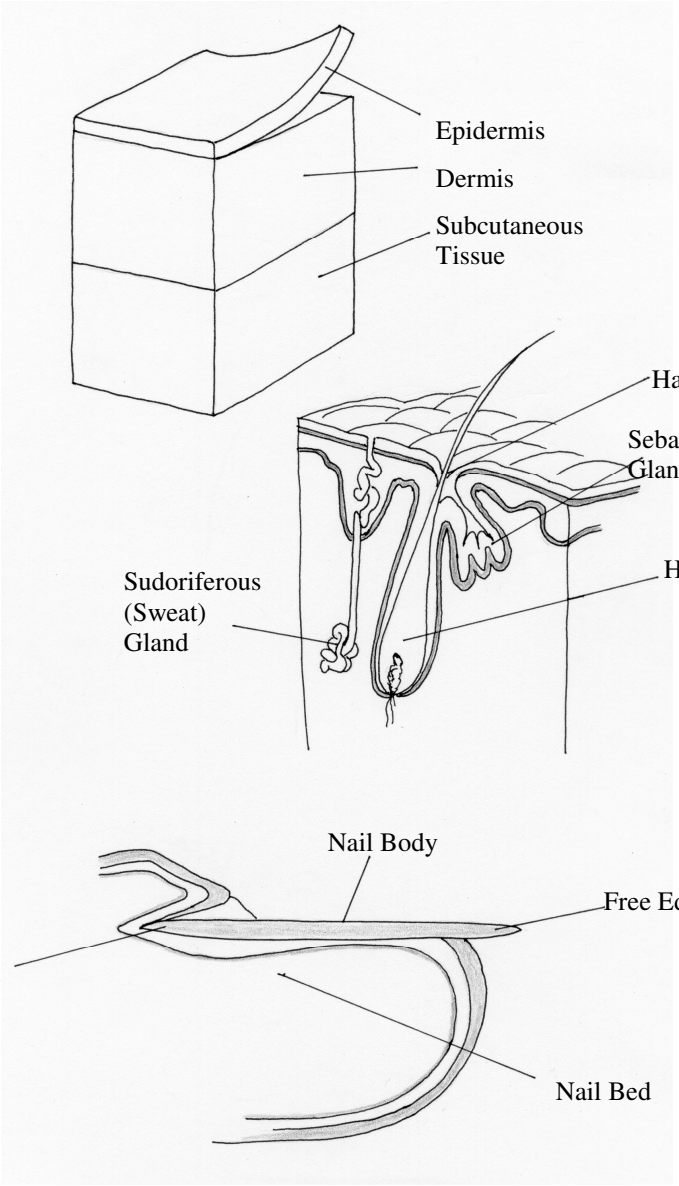
THE INTEGUMENTARY SYSTEM



Function:

1. Protects the body

2. Regulates temperature

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Anatomy/Physiology of the Sensory System (The Eye)

Lacrimal, Conjunctiva

The eyeball sits inside a bony structure and is protected by the eyelid. Lashes on the eyelid help to keep dust and dirt from entering the eye At the edge of the eyelid is a **lacrimal** gland that produces tears to keep the eye moist and wash away dust particles. Tears are drained off through the tear ducts into the nose. The eye sockets and the eyelids are lined with mucous membranes called the **conjunctiva.**

Cornea, Iris, Pupil, Lens, Retina, and Optic Nerves

The eye itself is made up of many parts that work together to produce sight. The **cornea,** the **pupil,** and the **lens** act like a camera and project patterns of light and dark onto the **retina** at the back of the eye. The **optic nerves** (one from each eye) carry information about these patterns to the brain. The brain then decodes the information into moving pictures.

Pathology of the Eye

Myopia, Hyperopia, Astigmatism

The most common overall problem affecting the eye is a decrease in vision. Approximately one-third of the population wears eyeglasses for correction of **myopia** (nearsightedness), **hyperopia** (farsightedness), and **astigmatism** (uneven focusing). Injury to various parts of the eye, especially to the cornea, can lead to pain and disability.

Conjunctivitis

Acute **conjunctivitis,** sometimes called pink eye, may occur by itself or be associated with another infection such as upper respiratory infection. Symptoms are redness, itching, and tearing. Treatment consists of systemic or local medication.

Cataracts

Cataracts, which most commonly arise spontaneously in elderly persons, are an opacity of the lens due to genes, reaction to drugs, or chemical toxicity. Symptoms are decreased vision with a milky pupil. Treatment consists of surgery.

Glaucoma

Glaucoma is a disease caused by an increase in pressure within the eye, with resultant damage to the optic nerve and its fibers inside the eye. Symptoms are aching in the eye, loss of peripheral vision, halos around lights and inability to see well at night. Treatment is the use of medications to decrease intraocular pressure.

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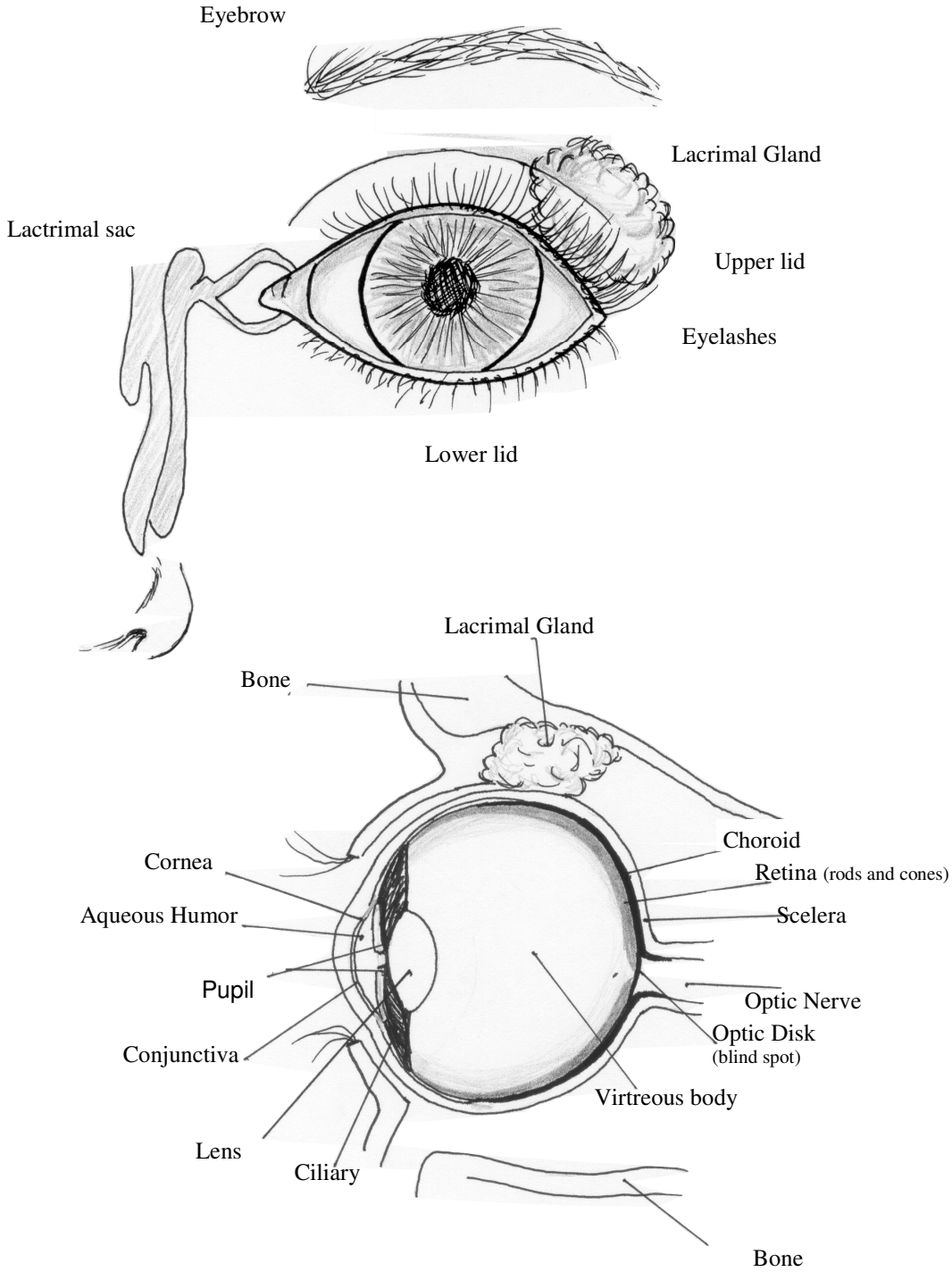
EYE AND EYE CROSS SECTION VIEW



Function:

1. Vision

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Anatomy/Physiology of the Sensory System (The Ear)

Auricle

The ear is a complex organ designed for hearing. It also plays a part in the body's sense of balance. It has three basic parts: the external ear, the middle ear, and the inner ear. The external ear consists of an outer **auricle** that projects from the head, and an ear canal. Glands in the external ear produce wax. Small hairs in the canal move this wax toward the outer opening. The wax protects the ear by trapping foreign materials and dust.

Eardrums

Hearing begins when the external ear picks up sound waves from the environment. The ear canal carries the sound waves to the **eardrum** which vibrates with the sounds. The vibrations of the eardrum are picked up by three tiny bones in the middle ear. These bones transmit the vibrations to specialized hearing cells in the inner ear. These cells are linked to the brain by means of the acoustic nerve.

Other cells in the inner ear detect changes in body position and therefore help to regulate balance.

Pathology of the Ear

Otitis Media

Otitis Media is inflammation of the middle ear. It is caused by infections: respiratory, viral, or throat. Symptoms include pain, fever, dizziness, nausea, vomiting, and drainage. Treatment is to administer antibiotics.

Meniere's Syndrome

Meniere's syndrome is a dibilitating disease caused by chronic disturbances of the inner ear. Symptoms are dizziness, ringing in the ears, nausea, vomiting, and a loss of hearing as the disease progresses. The treatment consists of administering medications to relieve the symptoms.

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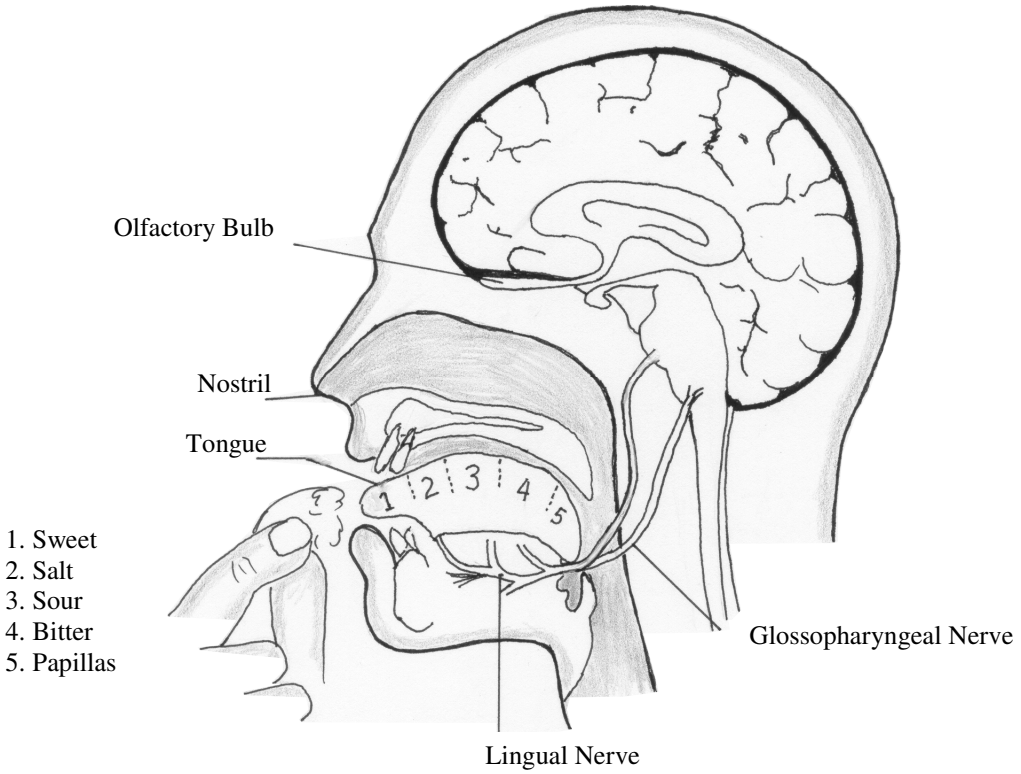
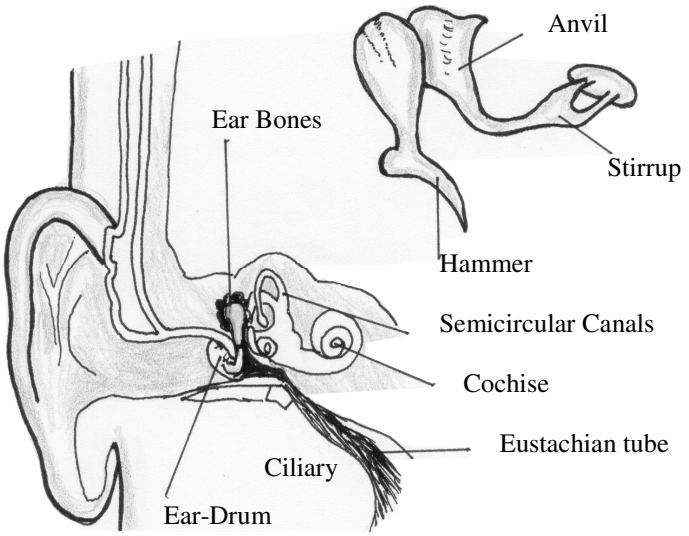
THE SENSORY SYSTEM

Taste, Smell and Hearing





Function:

1. Hearing
2. Balance
3. Smell
4. Taste

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APPROACHES TO MEDICINE ADMINISTRATION FOR PEOPLE WITH DEVELOPMENTAL DISABILITIES

Person-Centered Approach:

One hallmark of a person-centered approach to medication administration is a focus on the needs of the person. This approach considers such things as the persons' functional movement, ability to swallow, and what texture is easiest for the person to manage. In addition consider the person's ability to reliably identify himself or herself verbally. If not, there should be a recent photo with the medication administration record so that the person administering can correctly identify the person receiving medication. The medication system is then tailored to meet the person's needs. (Barks, 1994)

The person-centered approach shifts control to the person as much as possible. Medication still may be necessary, but the person with intact oral motor function may exert some control by choosing whether the medication is presented whole or crushed, or choosing the vehicle (e.g., applesauce or other food) as long as there is no food-drug interaction. (Barks 1994) Within individual capabilities the person should have the opportunity to be as independent as possible.

The developmental level of the person is relevant to the type of control he/she is capable of exercising. For example, if the person functions adaptively at the pre-school level, he/she may refuse medications that are necessary for health. Rather than allowing the person to "choose" whether or not to take the medication, shift control to the person by offering a choice within the medication regimen (e.g., consistency, vehicle). (Barks 1994)

Of course, in cases of medication refusal, also assess the person's refusal to determine if the decision is based on some aspect of the medication itself: Does it taste bad? Does it produce some unpleasant side effect? (Barks 1994) Consult with the person's PCP and other designated members of his/her support team when medications are refused.

However, it may be difficult for the person with the disabilities to perceive accurately the sensations that come from the medications he/she takes, and to interpret whether these are therapeutic or undesired effect. (Barks, 1994)

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Considerations in selection of a vehicle for medication administration in addition to individual preference are:

Table 1

	Problem with selected vehicle	Options
Texture*	Too coarse	Chop it until is the right size or select another vehicle
	Too fine	Don't use it. Get some food that is the appropriate texture.
Consistency*	Too sticky	Add liquids, condiments, or fats. For example, add mayonnaise, to pasta salad; add butter or milk to mashed potatoes.
	Too runny	Fruits and vegetables that are processed are often too runny. Drain off fluids, add unflavored gelatin, add cookie crumbs (to fruit), add bread or cracker crumbs or bran powder.
	Too wet	Blot the food with a paper towel or napkin or add bread or cookie crumbs or bran powder
	Too dry	Add a binder; liquids, condiments, or fats.

Adapted from Beckman & Roberts (1992)

Avoid using the person's food at mealtime as a vehicle for medication administration, unless the person requests the option. NOTE ALLERGIES AND/ OR FOOD-DRUG INTERACTIONS.
These must be appropriate to the person's eating skills. They should be indicated on the person's mealtime instructions.

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Communication Difficulties

In evaluating the effects of medication, or even physical status of a person, the caregiver must be aware of cognitive and communication difficulties that frequently are seen in persons with developmental disabilities. (Barks 1994)

If the person is verbal and is able to communicate, there are fewer problems assessing. However, if the person is nonverbal and/or has a very low level of cognitive development, he/she often will not be able to express clearly what he/she is feeling. At least two approaches to these problems are possible. First, monitor more aggressively the physical signs of distress, such as flushed skin, and rapid respiration in order to determine whether the person is in pain or has some distress. The keeping of reliable data becomes very important. Second, as a member of the person's support team, the caregiver can advocate that the person's communication system include such items that describe body parts and body sensations, such as "head" and "hurt", so that he/she can communicate his or her feelings as independently as possible. (Barks 1994)

Oral And Motor Difficulties:

Oral and motor difficulties are very significant considerations in medication administration. If the person has immature or abnormal oral patterns, the UNLICENSED PERSONNEL ADMINISTERING MEDICATION can request the support team refer the person to an oral motor specialist. See table 2 listed below;

Signs of need for assessment by an oral motor specialist.

TABLE 2
The person may show any or all of the following:

- Tonic bite (clamping down on utensils, or biting down when mouth should open)
- Tongue thrust (thrusting forward of tongue when food is taken in)
- Lip purse-stringing (pulling together of lips as though a purse string is being pulled)
- Lip retraction (pulling back of lips as though smiling, usually in response to oral stimulation)
- Jaw retraction
- Coughing, gagging, or any difficulty associated with swallowing
- Use of neck extension to hold food, fluid, or medications in the mouth for swallowing in the absence of sufficient oral control. (In this situation, either the person or staff moves the head back into neck extension. Otherwise, food, fluid, or medication placed in the mouth rolls out, because there is insufficient oral control to keep the substance in. This is often done in the absence of knowledge of other techniques.
- It is dangerous because it opens the airway, much as is done for intubation or CPR.)

From Barks, L., Beckman, D., Bray, M., & Green-McGowan, K. (1985). Nutritional management for professional staff. Produced by O'Neal and Associates, Ltd., for the Florida Department of Health and Rehabilitation Services.

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Table 2 includes some indicators that assessment by an oral motor specialist is needed. The health care provider can design some intake instructions to decrease the risk of aspiration during administration of medications, as well as eating and drinking. To the extent possible, each person should be encouraged to choose a preferred vehicle for medication administration. Some examples are applesauce, yogurt, pureed fruit, peanut butter, jelly, and cream cheese. However, **it is important to consider food-drug interactions and the amount, texture, temperature, and consistency of the substance swallowed.** See table 1. For example, the person may not be able to swallow a large bolus; however, a small bolus may offer no difficulty. Exact placement within the mouth can be very crucial. Optimum placement can be determined during assessment by the oral motor specialist. (Barks, 1994)

Special needs of persons with developmental disabilities must also be considered. If the person cannot take a sufficient amount of fluid for the medication to be swallowed and absorbed, the health care provider should assist in finding an alternate route. Determining "a sufficient amount" may be a collaborative effort of the PCP, nurse, dietitian, oral motor specialist, and pharmacist. Many people with physical disabilities have difficulties with esophageal reflux and erosion. Therefore, enteric-coated tablets should not be crushed, because the esophagus and stomach will be exposed to irritation. If an enteric-coated tablet cannot be taken intact orally, the health care provider can assist in finding an alternate route or medication. (Barks, 1994)

In mixing crushed or powdered drugs, it is important to include all of the dose; if the drug must be given in a pureed texture substance, be certain to give the entire amount. Liquid antiepileptic drugs, in particular, are notoriously difficult to dose accurately. In order to attain adequate seizure control, the support team can work with others, such as the pharmacist, physician, and oral motor specialist, to ensure precise dosages of these drugs. Syrups and elixirs can exert local anesthetic effects on oral, pharyngeal, and esophageal tissues. If fluid is offered immediately after administration of such compounds, the risk of aspiration may be increased. Finally, a person with oral motor difficulties should not be rushed through medication administration. This is an important learning experience for him or her, whether it concerns opportunities to practice oral motor skills or to remember different medications and their side effects. (Barks, 1994)

People with severe oral motor problems may have some difficulty in mouth opening. Tonic biting on a utensil, delayed swallowing, or loss of food or fluid from the mouth are also common problems. Beckman and Roberts (1992) have developed helpful techniques for overcoming such difficulties. See illustrations and explanation of positioning/swallowing techniques.

Note: The Unlicensed Personnel Administering Medication should not use these techniques unless: 1) They have been prescribed for the person and 2) the Personnel Administering Medication has been competency based, individual specific trained.

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Note: These techniques may only be used by staff who have received competency based, individualized training.

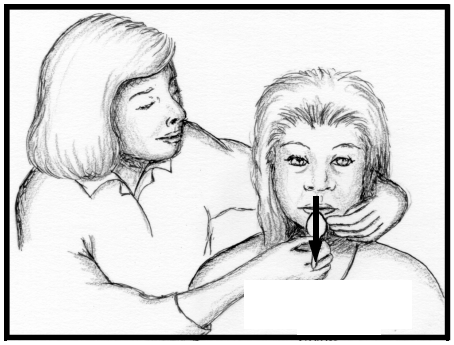
Examples of swallowing techniques:

1. These techniques are for people who cannot open their mouths, not for someone who is just refusing to take oral medicine.
2. One reason why people may not be able to open their mouths is tonic bite. Tonic bite is an abnormal movement that sometimes happens with increased muscle tone in the jaw. It causes the person to clamp down (with or without something in the mouth) and stay that way. *
3. Different events can trigger a tonic bite. These include other facial movements, head position, and stimulation to the face or mouth.
4. The techniques here work in several ways. First, they give cues to the person that food is coming and that it is time to open the mouth. Second, they may help relax the muscles around the mouth. Third, you are providing support so that muscles do not have to work so hard. Make sure you monitor constantly to make sure good alignment is maintained during the activity.

TECHNIQUE #1

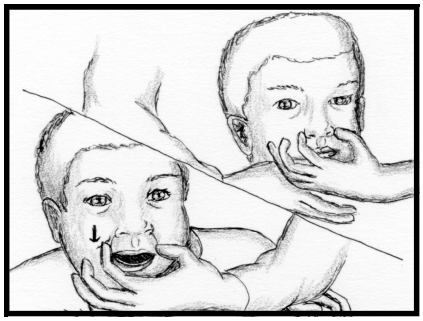
Tap lightly on the lower lip (giving the person a cue) one to three times with medium support. Then wait a few seconds for a response.

TECHNIQUE #2



Firmly press downward on the persons' lower lip with a utensil. Keep the utensil level.

TECHNIQUE #3



Use your thumb and index finger. Stroke down from either side of the nose, moving past the corners of the mouth. Use firm pressure with slow, continuous movement.

NOTE: Always check alignment first. Never try to pry someone's mouth open push the person's head back, or hold someone's nose.

*Techniques for assisting a person to open the mouth during a tonic bite are found on pg. 273

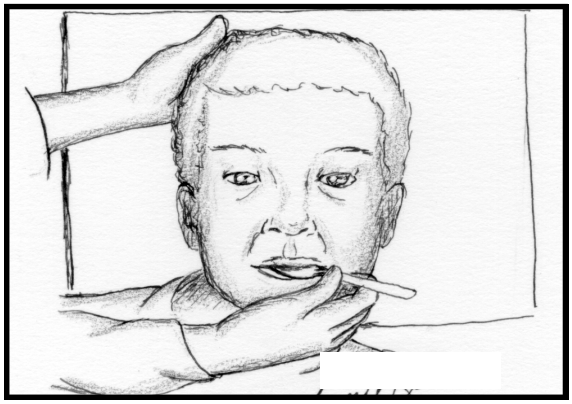
Note: These techniques may only be used by staff who have received competency based, individualized training.

These techniques are for people who cannot control their mouth muscles enough to release their jaws. These people are not voluntarily biting on the utensil; they just can't release it. The techniques here are very similar to those to help people open their mouths, because it is the same problem the jaw is clenched shut.

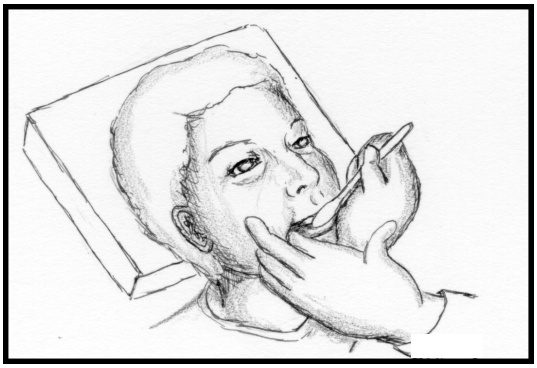
Make sure you monitor constantly to make sure good alignment is maintained during mealtime. You should not get bitten, because you are maintaining control of the person's head, and you are not touching the person's teeth.

For #3 below, the key is to apply pressure to the **gums,** not to the teeth or to the place where the lips meet the gums. You are doing a **slow** stretch. * *Do not pull on the utensil-it will only make the muscles clamp down more.

Note: These techniques should be used under the guidance of an oral-motor therapist. The Nurse can and should advocate for a thorough oral-motor evaluation and development of an oral-motor treatment plan by a qualified therapist for persons with persistent oral-motor problems.



Support the person's head. Slide your hand down the utensil until your knuckles rest against the person's chin.
Press firmly on the bone while holding the utensil. Use firm pressure with slow, continuous movement. Lighten pressure as you go by the utensil, so you don't bruise the lip.



Provide gum massage on the opposite side of the utensil. Begin center front, using your dominant hand. Move to the molars. When you get to the very back, press down next to the molars. Remove the utensil as the jaw releases, catching it with your other hand.

With thumb and index finger, stroke down, beginning at either side of the nose.
Move past the corners of the mouth.
Stop pressing quickly. Immediately remove the utensil as the jaw tension releases.

Select an appropriate utensil for oral medication:

- If the individual uses specialized equipment for eating, the same equipment should be used for administration of oral medication.
- If the individual has specialized instructions for meal times, they should be followed when administering oral medication.
- Therapeutic utensils include Teflon coated spoons, mother-care infant and youth spoons; not syringes.
- Avoid plastic disposable utensils and wood tongue blades with individuals who have a tonic bite. The strength of the bite can break the utensil. And cause dental injury.
- Always avoid scraping medications off the spoon and onto the palate or teeth. Get help from the

Techniques: Tonic biting on a utensil. (Adapted from Beckman & Roberts 1992.)

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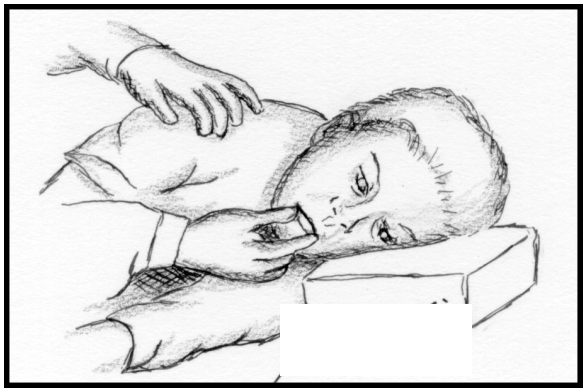
Note: These techniques may only be used by staff who have received competency based, individualized training.

The most important technique you can use to help a person swallow correctly is to make sure you help the person maintain an aligned position. For some individuals, an inclined sidelying position may afford better oral control for swallowing than an upright position.

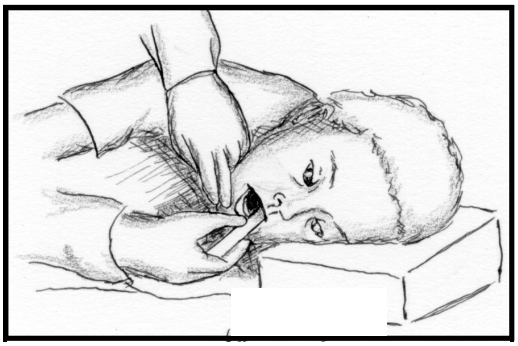
Check: Are the head and trunk aligned? Are the lips closed? Is the tongue inside the person's mouth? Is the person positioned in the optimum position for oral intake as identified in the positioning plan?

You may want to help the person by providing a small sip of a drink after each swallow. Wait to make sure the person has completely swallowed the food. Sometimes, it appears that the person has swallowed, but there is still food in the back of the throat. If the person tries to breathe in, this food can be sucked into the airway. Some people may need to swallow a few times to completely clear the food from their throats. Techniques: Delayed swallowing. (Adapted from Beckman & Roberts 1992)

Place food or fluid between the cheek and gum.



Support the person's lips. This may be done in a variety of ways. Follow the positioning plan.



Place food between the back molars (Do not use this technique if the person has tonic bite)

Get the back of the tongue to raise up against the roof of the mouth. You can do this by pressing up under the fleshy tissue just behind the chin with two fingers while keeping the chin flexed.

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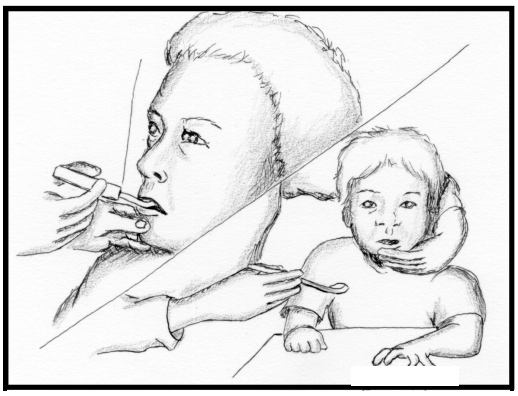
Note: These techniques may only be used by staff who have received competency based, individualized training.

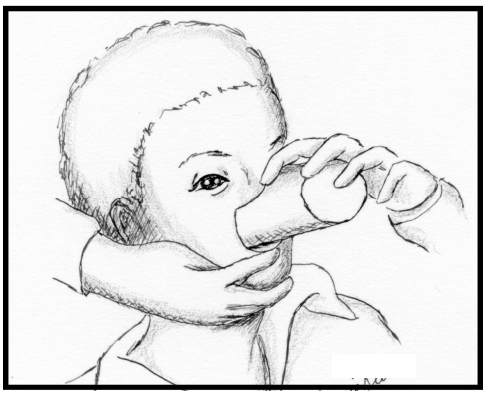
It is important to make sure that the person is getting his or her whole medication dose. Many times, people think that the person has gotten a whole dose when half of it is really on a napkin or tray.

First, try placing a smaller amount per bite or sip. Then try the techniques below.

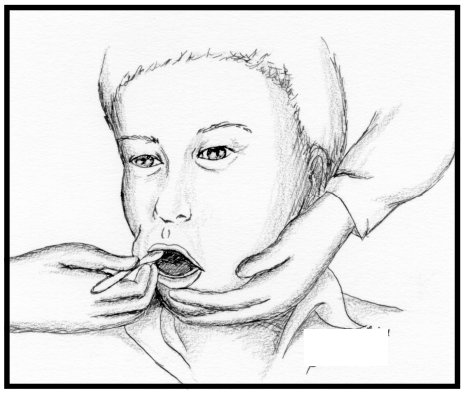
Make sure the head is aligned and slightly flexed.



Provide jaw support

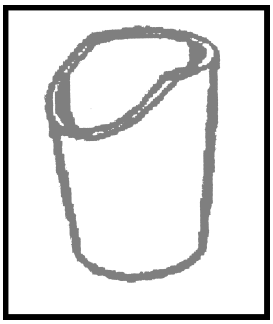


Provide lip support



Change the placement, for example, from center front to between the cheek and gums.

Use a cut-out cup (also called a 'Nosey' cup) when necessary. A nosey cup can be improvised as follows:



Techniques: Loosening food or fluid from the mouth.
(Adapted from Beckman & Roberts 1992)

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GROSS MOTOR DIFFICULTIES/IMMOBILITY

Many people with developmental disabilities also have physical disabilities that may be accompanied by muscle tone that is either too high (resulting in abnormal movements or postures) or too low (resulting in poor coordination and limpness). Abnormal muscle tone can result in difficulty in moving and positioning the body passively or actively for oral intake. Often, there are joint contractures and deformity that also make positioning very difficult. For example, persons with severe spasticity and hip and knee contractures may be difficult to seat in an upright position. Persons with very low muscle tone in the trunk often collapse downward when placed in a seated position with insufficient support. These situations can lead to spilling of medications and fluids from the mouth and difficulty in swallowing and keeping swallowed material in the stomach.
(Barks, 1994)

Alignment and Incline are critical components in positioning (Gerber, McAllister, & Tencza,1991). The person's body must be aligned (arranged around midline) so that optimal muscle function is available for the swallow. Incline is important to allow gravity to assist in the second and third stages of the swallow, in order for food or fluid to move from the mouth down to the stomach. Basic concepts of alignment and the implications of various positions for fluid and food intake are illustrated in Figure 6 and 7, respectively (Beckman & Roberts, 1992). The caregiver should ensure that, when in a seated or upright position to take oral medication, the person is supported so that he/she cannot slump forward or lean backward, thus increasing the changes of aspiration or other swallowing difficulties. Often, inclined sidelying is the best position for oral intake. (Barks, 1994)

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Examples of Swallowing/Positioning Techniques.

Position the person in the order indicated. Use a firm, slow touch. The face and mouth are sensitive areas. Alignment for each person is individualized for his/her needs and may look different from person to person. The mealtime instructions include specific directions for positioning, alignment and handling.

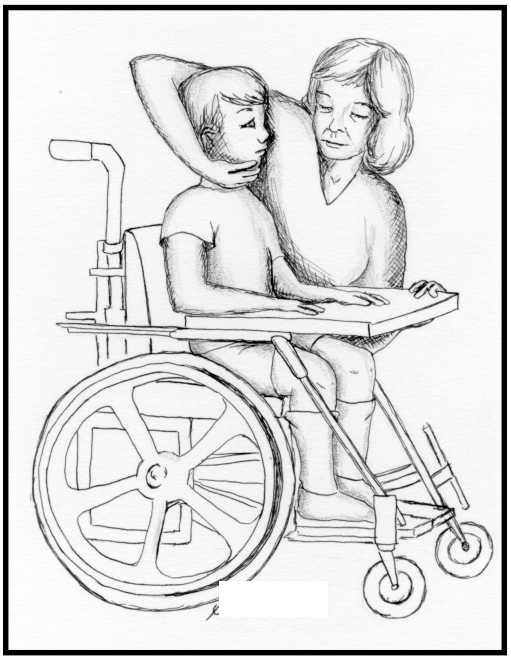
Note: These techniques should only be used with the guidance of a therapist.

BEFORE STARTING...

1 . **PELVIS.** Align and stabilize the pelvis (Anterior pelvic tilt, derotated, and level)
TRUNK. Elongate the trunk by using positioning equipment properly.

2. **SHOULDERS.** Align the person's shoulders by using pillows, wedges, rolls, or sidelying equipment. You may need to provide additional support across the person's shoulders to maintain alignment.

Positioning: Alignment before and during.



3. **ARMS.** Support and stabilize the arms.

4. **FEET.** Make sure the feet are supported.

WHILE EATING…

POSITION. Throughout the mealtime continue to recheck/monitor the alignment of the pelvis, trunk, shoulders, arms and feet, adjusting as needed

HEAD. Support the head with your whole arm and hand or by using .rolls, or a headrest. Use your shoulders or equipment to help tilt the head slightly forward. Avoid hyperextension of the neck.

JAW. Once the head is aligned, the jaw should stabilize. Provide support for best alignment. If jaw support is needed, support the jaw bone, not the fleshy part under the
chin. Remember to control the support to allow the person to open his or her mouth for the food, fluid, or medication, or to breathe.

TONGUE. Alignment -Assist with tongue control by maintaining alignment of the trunk and head and by providing support for the jaw and lips. Movement - Help control tongue movement by placement of the food/fluid and how much is presented for each bite/sip.

LIPS. Swallowing is best with lips closed. Provide support as directed.

(Adapted from Beckman & Roberts 1992.)

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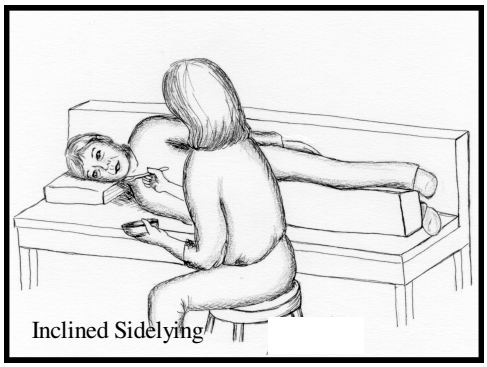
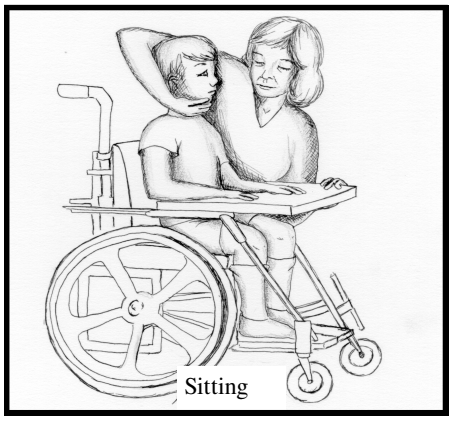
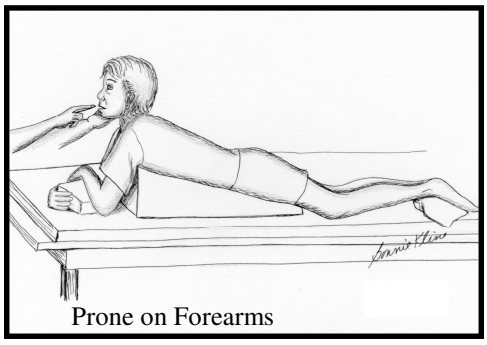
Continued Examples:


Inclined Sidelying

■ This is a resting position Breathing may be better in this position.
● Breathing may be impaired if there is too much pressure on the rib cage.
■ Better alignment may occur with less hyperextension, extraneous movement , or other reflex patterns.
■ Increased jaw, lip and tongue control may occur.
■ Coughing may decrease. .
■ Provides good position after eating for digestion.
● Spillage out of the lower cheek may increase.
● Assistant should be positioned at chest level and at eye level to avoid hyperextension.
● A straw works better than a cup in this position.


Sitting

■ Provide upright orientation
■ Breathing better in sitting than in supine.
● Head and neck hypertension, jaw thrust, tongue thrust and tonic bite may be increased in this position.
▲ If head control is poor, you must provide ongoing support of the person's head to ensure alignment
▲ Caregiver should be at or slightly below eye level of individual.
▲ The angle of chair may be reclined from 90° which results in faster flow of foods and fluids into the throat.


Prone on Forearms

■ This is a working position
■ Enhances movement of lips and cheeks toward midline .
■ May reduce jaw thrust or jaw retraction.
■ Good for weightbearing
■ Straw drinking, with head in slight flexion, is possible in this position.
● Hyperextension of the head and neck may occur with cup drinking and as the spoon is removed when eating.
● Breathing may be impaired if there's too much pressure on the ribcage
● Caregiver should be at or slightly below eye level of individual.
▲If poor lip control is present, spillage may increase.

Positioning: Implications of different positions (Key ■ = a benefit of the position; ● I= a potential problem with the position; ▲= things to consider while assisting.)
(Adapted from Beckman & Roberts 1992.)

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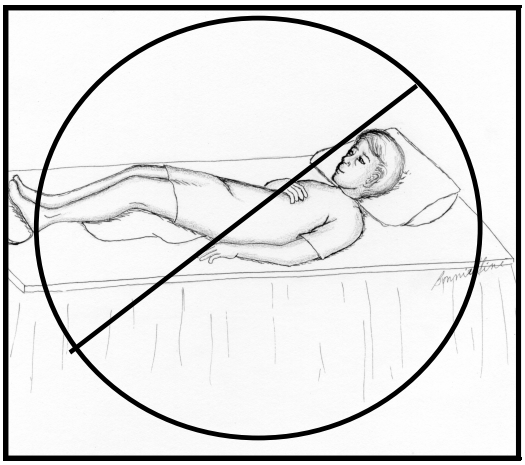
Continued Examples:



■ A resting position.
● Not a desirable position for oral or non-oral intake.
■ In this position, facial structures move away from midline. Jaw and tongue move into retraction and may force someone to be unable to breathe through the mouth. This is especially critical if the person has nasal congestion.
● Fluids pool on the back wall of the stomach.
● Food and fluids move swiftly into the throat.
● Breathing may be more shallow in this position.
● Secretions may pool in the back of the throat.

■ This is the working position.
■ Allows free head movement.
■ Enhances movement of facial structures toward midline (lips, cheeks).
■ May reduce jaw thrust.
■ Good weight bearing position.
■ Provides upright orientation.
■ Straw drinking head in slight flexion is possible in this position.
● Hyperextension of the head and neck may occur with cup drinking and as the spoon is removed when eating.
● Breathing may be impaired if too much pressure is exerted on the rib cage.
●This might be a very difficult eating position for people who can't easily bear weight on their feet.
▲Caregiver should be positioned at chest level and at eye level to avoid hyperextension.

Positioning: Implications of different positions (Key ■ = a benefit of the position; ● = a potential problem with the position; ▲= things to consider while assisting.)

(Adapted from Beckman & Roberts 1992.)

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APPENDIX I

DRUG CLASSIFICATION TABLES

MUSCULAR AND SKELETAL

MEDICATIONS USED IN TREATING MUSCULAR AND SKELETAL SYSTEM DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Analgesic (non-narcotic)				
Acetaminophen (or APAP)	Tylenol, Panadol, Tempra, etc.	Relieves pain, reduces fever	Allergic reaction--rash, fever, or difficulty breathing Yellow eyes or skin *Overdosage can cause liver damage.*	1. Do not exceed the recommended dosage. 2. Check the labels of all prescription & nonprescription medication the person takes. If any contain acetaminophen, check with the person's health care professional. (Taking them together with this medication may cause an overdose.)
Aspirin other names include **ASA** or **ECASA** (if enteric-coated)	Anacin, Bufferin, Ecotrin, Zorprin, Alka-Seltzer, etc.	1.relieves pain--used for headache, muscle ache, etc. 2. reduces inflammation--used for arthritis & other inflammatory diseases 3. reduces fever 4. decreases ability of blood to clot--used to prevent heart attacks and strokes	Stomach ulcers--signs include: bloody or black, tarry stools; throwing up blood or material that looks like coffee grounds; stomach pain Easy bruising/bleeding Allergic reaction--shortness of breath, wheezing, itching, inflammation inside the nose, swelling of eyelids, face, & lips Stomach upset (nausea, indigestion, heartburn) Ringing in ears, hearing loss Dizziness, weakness, confusion	1. Take with food or after meals & take with a full glass of water. 2. Do not use if a strong vinegar-like odor is present. 3. Do not crush enteric-coated aspirin. 4. Do not place or dissolve directly on an aching tooth, canker sore, or cold sore. A serious inflammatory reaction could occur. 5. Aspirin should not be used if the person takes blood thinners (Coumadin). Check with the physician.
Nonsteroidal Anti-inflammatory Drugs (NSAIDs)				
Ibuprofen	Advil, Motrin, Nuprin, etc.	1.relieves pain--used for headache, muscle ache, etc. Also, used to treat the symptoms of PMS and menstrual cramps. 2. reduces inflammation--used for arthritis & other inflammatory diseases 3. reduces fever	Stomach ulcers--signs include: bloody or black, tarry stools, throwing up blood or material that looks like coffee grounds, stomach pain Stomach upset (nausea, indigestion, heartburn) Ringing in ears, hearing loss Easy bruising/bleeding Allergic reaction (see aspirin above) Fluid retention/weight gain Dizziness, weakness, headache, vision changes	1. Take with food or after meals & take with a full glass of water. The person should avoid lying down for at least 30 minutes after taking the medicine. 2. May cause sensitivity to sunlight. Use sunscreen and wear protective clothing

MEDICATIONS USED IN TREATING MUSCULAR AND SKELETAL SYSTEM DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Nonsteroidal Anti-inflammatory Drugs (NSAIDs) continued				
Naproxen	Naprosyn, Anaprox, Aleve	See Ibuprofen	See Ibuprofen	See Ibuprofen
Indomethacin	Indocin	Relieves pain & reduces inflammation--used for arthritis, gout, & other inflammatory diseases	(also: headache is the most common side effect of indomethacin)	
Sulindac	Clinoril	Relieves pain & reduces inflammation--used for arthritis, gout, & other inflammatory diseases		
Diclofenac	Voltaren	Relieves pain; reduces inflammation--used for arthritis & other inflammatory diseases		
Fenoprofen	Nalfon	Relieves pain; reduces inflammation--used for arthritis & other inflammatory diseases		
Narcotic Analgesics				
Morphine	MS Contin, MSIR, RMS suppositories, etc.	Relief of moderate to severe pain	nausea; vomiting; **constipation**; dry mouth; drowsiness; hallucinations; cold, clammy skin; itching; rash; flushed face; increased sweating; slowed or troubled breathing; low blood pressure; decreased urination, **seizures** (especially with meperidine)	1. Narcotic analgesics will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not drink alcohol.** Overdosage of narcotics can lead to unconsciousness & death. 2. Take with food if stomach upset occurs.
Codeine	Tylenol with Codeine*, Robitussin AC, etc.	Relief of mild to moderate pain; also suppresses cough		
Hydrocodone	Lortab*, Vicodin*, Tussionex (with chlorpheniramine), etc.	Relief of moderate to severe pain; also suppresses cough		
Oxycodone	Percocet*, Roxicet*, Tylox*, Oxycontin, etc.	Relief of moderate to severe pain		
Hydromorphone	Dilaudid	Relief of moderate to severe pain		
Meperidine	Demerol, Mepergan Fortis (with Phenergan)	Relief of moderate to severe pain		
Propoxyphene	Darvocet*, Darvon *contains acetaminophen	Relief of mild to moderate pain	(also: propoxyphene can cause dark urine and yellow skin & eyes)	

MEDICATIONS USED IN TREATING MUSCULAR AND SKELETAL SYSTEM DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Steroids (oral)				
Prednisone	Deltasone	Used to decrease inflammation associated with arthritis, chronic respiratory problems, allergic reactions, and other inflammatory diseases	*See "Medications Used in Treating Enodocrine Disorders"*	
Prednisolone	Prelone; Delta-Cortef			
Methylprednisolone	Medrol			
Dexamethasone	Decadron			
Hydrocortisone	Cortef			
Triamcinolone	Aristacort			
Muscle Relaxants				
Methocarbamol	Robaxin	Treatment of muscle sprains, strains, or spasms.	drowsiness, dizziness, flushing of face, nausea, vomiting, rash, nasal congestion	1. **All** muscle relaxants will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system). People taking these drugs **should not drink alcohol**. 2. Methocarbamol may cause the person's urine to turn black, brown, or green. 3. Diazepam--withdrawal symptoms could occur if long-term or high-dose therapy is suddenly stopped. 4. Baclofen--hallucinations or seizures can occur if therapy is suddenly stopped. 5. Dantrolene--can make skin more sensitive to the sun. Avoid long exposure to sun, use sunscreen, and wear protective clothing.
Cyclobenzaprine	Flexeril	Treatment of acute muscle sprains, strains, or spasms.	drowsiness; dizziness; dry mouth; swelling of face/lips; difficulty in urinating; weakness; ringing in the ears	
Diazepam	Valium	Treatment of muscle spasticity.	drowsiness; dizziness; low blood pressure; dry mouth; slowed breathing; slurred speech;	
Baclofen	Lioresal	Treatment of muscle spasticity.	drowsiness; dizziness; slurred speech; difficulty sleeping; weakness; frequent or difficult urination; constipation; nausea	
Dantrolene	Dantrium	Treatment of muscle spasticity.	drowsiness; dizziness; weakness; difficulty sleeping; diarrhea; stomach cramps; nausea; slowed breathing;	

NERVOUS SYSTEM

MEDICATIONS USED IN TREATING NERVOUS SYSTEM DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antiepileptic/Anticonvulsant Agents				
Note: abrupt withdrawal of any of these medications could cause seizures.				
Carbamazepine	Tegretol	Treatment of epilepsy (seizures). (Carbamazepine, Valproic Acid, and Clonazepam are also used for some mental illnesses, such as manic-depression.)	**sedation, dizziness, unsteadiness,** confusion, blurred vision, nausea, vomiting, diarrhea, rash, easy bruising or bleeding, difficult urination	Do not crush Tegretol **XR** (other tablets may be crushed). The suspension should be shaken well (immediately before each use).
Phenytoin	Dilantin		**unsteadiness & decreased mental activity are related to elevated levels of the drug;** Others include: dizziness, rash, drowsiness, headache, difficulty sleeping, delirium, slurred speech, nausea, vomiting, overgrowth of gums, lack of appetite, constipation, weight loss	1. The suspension should be shaken well (immediately before each use). 2. If the person is receiving feeding and medication through a tube into their stomach, the tube feeding should be stopped for at least 1 hour before and after the dose of phenytoin is given. (The tube feeding can decrease the absorption of the phenytoin.) 3. Good dental hygiene is very important to prevent overgrowth of gum tissue.
1. Valproic Acid **2. Divalproex**	1. Depakene 2. Depakote		**nausea, vomiting, weight gain**, stomach cramps, drowsiness, unsteadiness, confusion, tremor, hair loss, easy bruising/bleeding, rash, changes in menstrual cycle	Available in syrup, sprinkle capsules, and enteric-coated tablets. Sprinkle capsules may be opened and the contents sprinkled on a small amount of food (such as applesauce). Do not crush the sprinkles or the enteric-coated tablets.
Clonazepam	Klonopin		**drowsiness,** confusion, dizziness, unsteadiness, difficulty sleeping, depression, headache, blurred vision, nausea, vomiting, dry mouth, diarrhea, constipation, rash, increased heart rate, low blood pressure, fainting, slurred speech, tremor	Clonazepam will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system). People taking this drug **should not drink alcohol.**
Phenobarbital	No Brand Name		**drowsiness,** confusion, dizziness, difficulty sleeping, depression, headache, nausea, vomiting, constipation, slowed breathing, low blood pressure	Phenobarbital will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system). People taking this drug **should not drink alcohol.**

MEDICATIONS USED IN TREATING NERVOUS SYSTEM DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antiepileptic/Anticonvulsant Agents (con't.)				
Primidone	Mysoline	See Carbamazepine	same as phenobarbital	same as phenobarbital; Also, the suspension should be shaken well (immediately before each use).
Gabapentin	Neurontin		**drowsiness**; dizziness; unsteadiness	Give Neurontin at least 2 hours after antacids, such as Maalox (antacids decrease absorption)
Lamotrigine	Lamictal		**rash;** nausea; dizziness; drowsiness; unsteadiness	
Topiramate	Topamax		**weight loss; kidney stones** (painful urination, back pain); drowsiness; speech or language problems; confusion; difficulty with concentration; mood changes	
Tiagabine	Gabitril		dizziness; drowsiness; nausea; nervousness; lack of energy;	
Antiparkinsonian Agents				
Benztropine	Cogentin	Used in combination with other drugs to treat the symptoms of Parkinson's Disease. Also used to treat some of the side effects of anti-psychotic drugs.	dry skin; dry mouth; constipation; increased heart rate; difficulty swallowing; confusion; hallucinations; difficulty urinating; increased sensitivity to light	1. This medicine can reduce the ability to sweat (sweating prevents overheating). Avoid excessive exercise and sun exposure. 2. Drinking fluids, sucking on hard candy (if appropriate), and good dental hygiene can relieve dry mouth
Trihexyphenidyl	Artane			
Diphenhydramine	Benadryl		*See "Medications Used in Treating Respiratory Disorders" for information.*	
Amantadine	Symmetrel	Used in combination with other drugs to treat the symptoms of Parkinson's Disease. Also used to treat some of the side effects of anti-psychotic drugs and to treat the flu.	dry mouth; nausea; constipation; difficulty sleeping; depression; swelling of legs/feet; dizziness; fainting; headache; difficulty urinating;	1. May cause seizures, especially in people with epilepsy. 2. Person should not get up quickly after sitting or lying down; this may cause fainting or dizziness.
Levadopa/ Carbidopa	Sinemet	Treatment of Parkinson's Disease.	dizziness; confusion; nightmares; nausea; vomiting; loss of appetite; constipation; involuntary movements; difficulty urinating; darkened urine & sweat (not harmful);	1. Person should not get up quickly after sitting or lying down; this may cause fainting or dizziness. 2. Can take with food to prevent stomach upset 3. Do not take levadopa with vitamin supplements that contain Vitamin B6 (pyridoxine). This does not apply to products containing carbidopa, such as Sinemet.
Levadopa	Larodopa, Dopar			

PSYCHIATRIC

MEDICATIONS USED IN TREATING PSYCHIATRIC DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antipsychotic Agents (also known as Neuroleptics)				
Acetophenazine	Tindal	These drugs are mainly used to treat psychotic disorders, such as schizophrenia. They are also used to treat other psychiatric diseases.	**Dystonia**--acute muscle spasms of specific muscle groups; includes torticollis (spasm of the neck muscles drawing the head to one side), trismus (spasm of jaw muscles), & oculogyric crisis (spasms of eye muscles); usually seen after IM injections, at the beginning of therapy, or after dosage **Akathisia**--feeling of restlessness & irresistible urge to move parts of the body; consists of agitation, jitteriness, inability to sit still, tapping of feet, strong urge to move around, & difficulty sleeping. Usually occurs early in therapy. **Parkinson's symptoms**--drooling, tremors, pill-rolling movement of fingers, mask-like appearance of face, shuffling, stiff muscles, slowed speech **Neuroleptic Malignant Syndrome**--fever, dark urine, paleness, sweating, muscle stiffness, decreased level of consciousness, increased heart rate **Tardive Dyskinesia**--abnormal, involuntary movements that occur after long-term use of antipsychotics; mainly affect the facial muscles, tongue, mouth, hands, & feet; movements include: chewing, lip-smacking, puffing of cheeks, grimacing, rapid blinking, etc. **Other:** dry mouth; drowsiness; constipation; difficulty with urination; confusion; dizziness, lightheadedness, or fainting can occur when rising too quickly from sitting or lying; sore throat; fever; weakness; skin discoloration; changes in menstrual cycle; weight gain	1. Antipsychotics can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm. 2. Antipsychotics can make the person sweat less. Use extra care to not become overheated during exercise or hot weather. 3. Antipsychotics will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not drink alcohol** 4. Many of these drugs are available as a concentrated oral liquid & come in a dropper bottle. Measure each dose with the dropper provided and dilute it in at least 1/2 glass (4 ounces) of water or juice. See the package information for specific guidelines. 6. Clozapine can cause a decrease in the number of certain blood cells that fight infection. Regular lab tests will be necessary to monitor for this adverse effect. Watch for fever, chills, sore throat, weakness, flu-like symptoms, & other signs of infection. Report these to the doctor as soon as possible. 7. Notify the doctor of any signs of tardive dyskinesia.
Chlorpromazine	Thorazine			
Chlorprothixene	Taractan			
Clozapine	Clozaril			
Fluphenazine	Prolixin			
Haloperidol	Haldol			
Loxapine	Loxitane			
Mesoridazine	Serentil			
Molindone	Moban			
Olanzapine	Zyprexa			
Perphenazine	Trilafon			
Pimozide	Orap			
Promazine	Sparine			
Quetiapine	Seroquel			
Risperidone	Risperdal			
Thioridazine	Mellaril			
Thiothixene	Navane			
Trifluoperazine	Stelazine			

MEDICATIONS USED IN TREATING PSYCHIATRIC DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antidepressants				
Tricyclic/Tetracyclic Antidepressants				
Amitriptyline	Elavil	Usually used to treat depression & othe mood disorders; they may also be used for other psychiatric disorders. Clomipramine is used to treat obsessive-compulsive disorder. Imipramine is also used to treat bed-wetting.	dry mouth, constipation, blurred vision, difficult urination; drowsiness; weakness; restlessness; tremor; fast heart rate; weight gain; dizziness, lightheadedness, or fainting can occur when getting up too fast from a lying or sitting position; seizures. Amoxapine may also cause tardive dyskinesia (see Anti-psychotic agents).	1. These drugs can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm. 2. These drugs will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not drink alcoho**. 3. Drinking fluids, sucking on hard candy (if appropriate), and good dental hygiene can relieve dry mouth.
Amoxapine	Asendin			
Clomipramine	Anafranil			
Desipramine	Norpramin			
Doxepin	Sinequan, Adepin			
Imipramine	Tofranil			
Maprotiline	Ludiomil			
Nortriptyline	Pamelor, Aventyl			
Protriptyline	Vivactil			
Trimipramine	Surmontil			
Monamine Oxidase Inhibitors (MAOI's)				
Phenelzine	Nardil	Treatment of depression.	Hypertensive Crisis (sudden increase in blood pressure): severe headache, neck stiffness or soreness, nausea, vomiting, sweating, clammy skin, chest pain, heart palpitations Other: dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position; blurred vision; drowsiness; fast heart rate; trembling; constipation; dry mouth; yellowing of skin/eyes; weight gair	1. If the person has signs of hypertensive crisis, **call the doctor immediately!** This is a serious adverse effect. 2. Several foods & drinks may interact with MAOI's to cause hypertensive crisis. **These foods must be avoided** (check with dietitian for full list of foods)**:** a. Cheeses, yogurt, sour cream; b. Smoked or pickled meats; bologna; pepperoni; salami; summer sausage; c. Alcoholic beverages & non-alcoholic beer; d. Caffeine containing products (cola, coffee, tea, chocolate); e. Certain fruits/vegetables (sauerkraut, Cava beans, bananas, overripe fruit, raisins) 3. The person should not take other any medicine unless prescribed or approved by the doctor (including over-the-counter medicines & herbal supplements).
Tranylcypromine	Parnate			

MEDICATIONS USED IN TREATING PSYCHIATRIC DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antidepressants (con't.)				
Selective Seratonin Reuptake Inhibitors (SSRI's)				
Fluoxetine	Prozac	Used to treat depression, obsessive-compulsive disorder, manic-depression, panic disorders, & eating disorders.	headache, nervousness, difficulty sleeping drowsiness, dizziness, dry mouth, nausea diarrhea, itching, rash, sweating	1. If medicine causes upset stomach, it may be taken with food. 2. These drugs will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not drink alcohol.** 3. Drinking fluids, sucking on hard candy (if appropriate), and good dental hygiene can relieve dry mouth.
Fluvoxamine	Luvox			
Paroxetine	Paxil			
Sertraline	Zoloft			
Other Antidepressants				
Bupropion	Wellbutrin	Treatment of depression.	agitation, difficulty sleeping, headache, restlessness, confusion, blurred vision, tremor, nausea, vomiting, dry mouth, constipation, rash, seizures	1. Do not discontinue abruptly. 2. Will add to the effect of alcohol & CNS depressants (see #2 above).
Nefazodone	Serzone	Treatment of depression.	headache; drowsiness; difficulty sleeping; agitation; dizziness; confusion; dry mouth; nausea; constipation; tremor; dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position;	1. Will add to the effect of alcohol & CNS depressants (see #2 under SSRI special considerations-above). 2. May cause prolonged or painful erections. Contact doctor if this occurs.
Trazodone	Desyrel	Treatment of depression; may also help in treating anxiety and schizophrenia.	drowsiness; headache; confusion; tremor, weakness; blurred vision; dry mouth; nausea; dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position;	1. Will add to the effect of alcohol & CNS depressants (see #2 under SSRI special considerations-above). 2. May cause prolonged or painful erections. Contact doctor if this occurs. 3. Take shortly after a meal or light snack; often prescribed to be given at bedtime due to drowsiness.
Venlafaxine	Effexor	Treatment of depression; has also been used for obsessive-compulsive disorder.	headache, drowsiness, dizziness, weakness, nausea, constipation, dry mouth, difficulty swallowing, sweating, heart palpitations, fast heart rate, weight loss; increased blood pressure	1. Take with food. 2. Extended release capsules--do not crush, chew, or dissolve in water. Swallow whole with adequate amount of fluid. 3. Will add to the effect of alcohol & CNS depressants (see #2 under SSRI special considerations).

MEDICATIONS USED IN TREATING PSYCHIATRIC DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antianxiety Drugs/Sedatives/Hypnotics				
Alprazolam	Xanax	These drugs belong to a class called benzodiazepines. They are used for: 1. Anxiety disorders; (e.g., post traumat stress disorder, obsessive compulsive disorder); 2. Short-term relief of anxiety; (e.g., bef surgery); 3. Sedation & relief of anxiety before medical procedures (lorazepam most commonly used); 4. Insomnia (inability to sleep) 5. Schizophrenia (with antipsychotics) 6. Epilepsy (diazepam, lorazepam, & clonazepam); 7. Spasticity (diazepam).	slowed or difficult breathing; drowsiness; incoordination; dizziness; slurred speech; lightheadedness; confusion; dry mouth; change in appetite; nausea; constipation; fainting; low blood pressure; change in weight; itching; rash; sweating;	1. These drugs will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not drink alcoho**. 2. Withdrawal symptoms could occur if long-term or high-dose therapy is suddenly stopped.
Anafranil	Clomipramine			
Chlordiazepoxide	Librium			
Clonazepam	Klonopin			
Diazepam	Valium			
Lorazepam	Ativan			
Oxazepam	Serax			
Temazepam	Restoril			
Buspirone	BuSpar	Used for the treatment of anxiety disorders.	drowsiness; dizziness; lightheadedness; headache; restlessness; difficulty sleeping; nausea	The full effect of Buspirone may not be seen until after 3-4 weeks of treatment.
Chloral Hydrate	Noctec	Usually used as a sedative prior to EEG evaluations, dental procedures, or other diagnostic procedures. It is also used for the short-term (less than 2 weeks) treatment of insomnia.	stomach irritation; nausea; vomiting; diarrhea; drowsiness; hallucinations; dizziness; incoordination; "hangover" effect; rash; itching	1. Take capsule with a full glass of water. The capsule should not be crushed or chewed. If using the syrup, dilute the dose in at least a half glass of water, ginger ale, or fruit juice. 2. This drug will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not drink alcohol**.
Diphenhydramine	Benadryl, Nytol, etc.	Diphenhydramine is an antihistamine that is often used as a nighttime sleep aid. It is also used to treat the symptoms of Parkinson's Disease, the side effects of anti-psychotic drugs, allergies, & allergic reactions.	*See under "Medications Used in Treating Respiratory Disorders"*	
Hydroxyzine	Vistaril, Atarax	Hydroxyzine is an antihistamine that is also used to treat anxiety.	drowsiness; dizziness; thickening of bronchial secretions; headache;	Hydroxyzine will add to the effects of alcoho & other CNS depressants (drugs that slow
Zolpidem	Ambien	Used for the short-term treatment of insomnia.	drowsiness; dizziness; headache; confusion; stomach upset; muscle ache;	See hydroxyzine (above).

MEDICATIONS USED IN TREATING PSYCHIATRIC DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antimania Drugs				
Lithium	Lithobid, Eskalith, Lithonate, etc.	Use to treat mania, depression, & psychotic disorders.	**Signs of lithium overdose/toxicity**: severe drowsiness, coarse hand tremor, loss of appetite, vomiting, muscle twitching, confusion, slurred speech, walking, seizures, coma. **Other adverse effects**: increased thirst, increased urination, nausea, stomach upset, bloating, weight gain, fine hand tremor, weakness, impaired memory, difficulty concentrating, rash, acne, hair loss,	1. Take after meals. 2. Drink 8 to 12 glasses of water or other fluids per day, and use a normal amount of salt in food. 3. Use extra care in hot weather and when exercising. The loss of too much water and salt from the body can lead to serious side effects. 4. Notify the doctor if the person has an infection or illness that causes vomiting, diarrhea, or heavy sweating. These could lead to the loss of too much water & salt. 5. Do not open, crush, or chew extended-release capsules or tablets. 6. Contact the physician as soon as possible if the person shows the signs of lithium toxicity.
Carbamazepine	Tegretol	*See under "Medications Used in Treating Nervous System Disorders"*		
Valproic Acid	Depakote, Depakene	*See under "Medications Used in Treating Nervous System Disorders"*		

CARDIOVASCULAR

MEDICATIONS USED IN TREATING CARDIOVASCULAR DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
General Considerations: 1. People on these medications should not take any over-the counter medication unless it has been prescribed by the docto 2. It is very important that these medications be given as scheduled. 3. Salt intake and fluid intake/output should be monitored as directed by the doctor. 4. Routine blood pressure monitoring is important for people on these drugs.				
Antihypertensive Drugs (drugs that lower blood pressure)				
Atenolol	Tenormin	This group of medicines is known as "beta-blockers". These medicines are used to treat high blood pressure & abnormal heart rhythms and to prevent heart attacks. Propranolol is also used for some psychiatric disorders, migraine headaches, and tremors.	tiredness, dizziness, depression, confusion, weakness, slow heart rate, wheezing or shortness of breath, stomach upset, diarrhea, dry mouth, itching/rash	1. These medicines should not be stopped suddenly (can cause withdrawal symptoms such as sweating, pounding heart beat, & headache; could worsen chest pain or cause a heart attack). 2. In diabetics, these drugs can mask the signs of low blood sugar (such as fast heart rate) and change blood sugar levels.
Metoprolol	Lopressor			
Propranolol	Inderal			
Nifedipine	Procardia, Procardia XL	This group of medicines is known as "calcium channel blockers". These medicines are used to treat high blood pressure and control chest pain.	slow heart rate; heart palpitations; swelling of legs or feet; flushing; dizziness; lightheadedness; headache; weakness; nausea; constipation; muscle cramps; overgrowth of gums	1. Do not crush sustained-release drugs such as Procardia XL, Cardizem CD, or Calan SR. 2. These medicines should not be stopped suddenly (could cause chest pains). 3. Good dental hygiene is very important to prevent overgrowth of gum tissue. 4. If the person is taking Procardia XL, an empty tablet may be seen in the stool; this is no cause for concern.
Diltiazem	Cardizem, Cardizem CD, Dilacor, etc.			
Verapamil	Calan, Isoptin, etc.			
Amlodipine	Norvasc			
Lisinopril	Prinivil, Zestri	This group of medicines is known as "ACE inhibitors". These medicines are used to treat high blood pressure and heart failure.	cough; dizziness, lightheadedness, or fainting, especially when rising too quickly from a seated or lying position; rash; headache; stomach upset; diarrhea; high potassium level (signs: confusion, tingling or numbness of hands or feet, weakness, irregular heartbeat, shortness of breath)	1. Notify doctor immediately if persor has swelling of face, lips, or tongue or has difficulty breathing. 2. Do not use salt substitutes (potassium) without the doctor's advice.
Benazepril	Lotensin			
Fosinopril	Monopril			
Quinapril	Accupril			
Prazosin	Minipress	This group of medicines is known as "alpha blockers" & is used to treat high blood pressure. These medicines are also used to treat men with enlarged prostates.	dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position; drowsiness; weakness; headache; swelling of feet or lower legs; irregular or pounding heart beat	Dizziness or fainting is more likely to occur after the first dose. The first dose is usually given at bedtime to prevent problems. However, dizziness can occur after any dose, so the person should get up slowly from a seated or lying position.
Terazosin	Hytrin			

MEDICATIONS USED IN TREATING CARDIOVASCULAR DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antihypertensive Drugs (continued)				
Labetalol	Normodyne	Used to treat high blood pressure.	dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position; swelling of legs/feet; upset stomach; wheezing or trouble breathing; tiredness; dizziness; headache; rash;	1. Dizziness or fainting is more likely to occur after the first dose or after dosage increases. The person should get up slowly from a seated or lying position. 2. In diabetics, labetolol can mask the signs of low blood sugar (such as fast heart rate) and change blood sugar levels. 3. Labetolol should not be stopped suddenly.
Clonidine	Catapres	Used to treat high blood pressure; has also been used for some psychiatric disorders such as Attention Deficit Disorder and Tourette's Syndrome.	dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position; drowsiness; confusion; depression; headache; weakness; swelling of feet or legs; dry mouth; constipation; nausea	1. Clonidine should not be stopped abruptly. This can cause a rapid increase in blood pressure. 2. If the person is using the Catapres Transdermal patch, apply it to hairless area of skin on upper arm or chest. Every 7 days, the old patch is removed and a new patch is applied-use a different skin site from the previous application. The patch should stay in place even during showering, bathing, or swimming. If the patch becomes loose, cover it with the adhesive overlay that is provided. For additional information, see package insert 3. The patch (both new & used) is **extremely** toxic if ingested. After removing a used patch, fold it in half with the sticky sides together. Dispose of it where no one can get it. The patch form should generally be avoided in people with Pica (consuming inedible objects).
Hydralazine	Apresoline	Used to treat high blood pressure & heart failure.	heart palpitations; redness or flushing of face; fast heart rate; headache; nausea/vomiting; constipation; muscle or joint aches; rash; numbness or tingling in the hands or feet	May cause dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position.
Methyldopa	Aldomet	Used to treat high blood pressure.	dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position; swelling of legs/feet; drowsiness; depression; tiredness; headache; fever; dry mouth; upset stomach; trouble breathing; swelling of breasts	1. May cause urine to become dark. 2. Notify doctor if person has prolonged fever or tiredness, or if their skin yellows.

MEDICATIONS USED IN TREATING CARDIOVASCULAR DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Diuretics (also known as "water pills")				
Furosemide	Lasix	Used to treat high blood pressure by causing increased elimination of water & sodium; also used to decrease fluid retention due to heart, liver, or kidney disease.	dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position; low potassium level (symptoms: mental changes, muscle cramps, weakness, nausea, irregular heartbeat); increased thirst; rash	1. Furosemide can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm. 2. May affect blood sugar levels in diabetics. 3. Increases urination, so dose should be scheduled early in the day to avoid disruption of sleep.
Hydrochlorothiazide(HCTZ)	Hydrodiuril	Used for high blood pressure & fluid retention in heart and kidney disease.	See Furosemide	See Furosemide
Triamterene & Hydrochlorothiazide	Dyazide, Maxzide	Used for high blood pressure & fluid retention in heart and kidney disease.	nausea; stomach cramps; diarrhea; increased thirst; high potassium level (signs: confusion, tingling or numbness of hands or feet, weakness, irregular heartbeat, shortness of breath); rash	See Furosemide; Also, avoid salt substitutes & large amounts of potassium-rich food.
Spironolactone	Aldactone	Used for high blood pressure & fluid retention in liver disease.	high potassium level (signs: confusion, tingling or numbness of hands or feet, weakness, irregular heartbeat, shortness of breath); dizziness; breast tenderness & increased hair growth in females; breast enlargement in males; increased thirst; diarrhea; nausea; sweating	1. Take with food to prevent stomach upset. 2. Avoid salt substitutes & large amounts of potassium-rich food.
Cardiotonics				
Digoxin	Lanoxin	Used to treat heart failure & some abnormal heart rhythms.	Signs of high digoxin level: nausea; vomiting; visual disturbances (see halos, yellow or green spots, flashing lights), weakness; dizziness; headache; drowsiness; disorientation; hallucinations; irregular heartbeat	1. Notify doctor immediately if person shows signs of a high digoxin level. 2. The person should take this medicine at generally the same time each day, usually in the morning.

MEDICATIONS USED IN TREATING CARDIOVASCULAR DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antiarrhythmics				
Disopyramide	Norpace	Used to treat abnormal heart rhythms.	difficulty urinating; dry eyes, nose, mouth; constipation; nausea; weakness; dizziness or fainting when rising too quickly from a seated or lying position; swelling of feet or legs; chest pain;	1. Do not break or chew sustained-release products. 2. This medicine should not be stopped suddenly; this could cause a serious change in heart function. 3.This drug may cause low blood sugar in some people; watch for signs: chills, unsteady walk; cold sweats, confusion, shakiness, anxiety.
Procainamide	Pronestyl, Procanbid		nausea; diarrhea; dizziness; fainting; fever; chills; joint pain or swelling; rash.	1. See numbers 1 & 2 above. 2. Extended-release tablet may be seen in the stool. This is normal & no cause for concern. 3. Notify doctor if person has sore mouth, gums, or throat or if they have symptoms of a respiratory tract infection.
Propafenone	Rythmol		dizziness; drowsiness; headache; constipation; stomach upset; abnormal taste; heart palpitations; chest pain;	1. This medicine should not be stopped suddenly this could cause a serious change in heart function. 2. Notify doctor of sore throat, unusual bleeding or bruising, or extreme tiredness.
Quinidine	Quinaglute, Quinidex		diarrhea; nausea; stomach cramps; bitter taste; headache; dizziness; fainting; ringing in the ears; rash;	1. Do not break or chew sustained-release products. 2. Take with food. 3. This medicine should not be stopped suddenly; this could cause a serious change in heart function. 4. Notify doctor of rash, unusual bleeding or bruising, ringing in ears, or fainting.

MEDICATIONS USED IN TREATING CARDIOVASCULAR DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Nitrates (Nitroglycerin)				
Nitroglycerin	Nitrol, NitroDur, NitroBid, Nitrostat, etc.	Used to prevent or treat chest pain (called "angina").	dizziness, lightheadedness, or fainting, especially when rising too quickly from a seated or lying position; headache; blurred vision; dry mouth; flushing;	1. Take the oral form on an empty stomach. Do not crush or chew extended-release dosage forms. 2. Do not chew or swallow sublingual tablets. 3. Topical ointment--Use the dose-measuring papers to measure the length of ointment squeezed from the tube & to apply the ointment to the skin. Apply to a non-hairy area of chest or back. Do not rub or massage the ointment into th skin; just spread a thin, even layer. See package insert for further information. 4. Patch--apply it to hairless area of skin on uppe arm or chest; remove the old patch before applying a new one; change at least daily (usually left on 12-14 hours & then taken off); follow doctor's instructions and package insert. 3. The patch (both new & used) is **extremely** toxic if ingested. After removing a used patch, fold it in half with the sticky sides together. Dispose of it where no one can get it. The patch form should generally be avoided in people with Pica (consuming inedible objects).
Isosorbide Dinitrate	Isordil			
Anticoagulants (also known as "blood thinners")				
Warfarin	Coumadin	Used to treat and prevent blood clots; also used to prevent strokes and heart attacks.	**Signs of bleeding inside the body**: black, tarry stools; blood in the stool; pink or red urine; vomiting blood; vomit that looks like coffee grounds; abdominal pain; severe headache; joint pain; fainting; dizziness; shortness of breath. Can also see: bleeding gums; excessive menstrual bleeding; nosebleeds; bruising. **Other adverse effects**: nausea; vomiting; diarrhea; hair loss; purple discoloration of toes; purple/black areas or skin breakdown on buttocks, thighs, breasts, or stomach	1. Notify doctor immediately if person shows any signs of bleeding or experiences falls, injuries, or blows to the head or body. 2. Foods high in Vitamin K can decrease the effectiveness of warfarin. A balanced diet with a **consistent** intake of Vitamin K is essential; avoid large amounts of liver and leafy green vegetables (turnip greens, broccoli, spinach, cabbage, lettuce, Brussels sprouts, cauliflower, asparagus). Do not change diet once stable on warfarin therapy. 3. Routine lab testing is extremely important 4. Use special care in toothbrushing & shaving. Use a soft toothbrush. Use an electric razor rather than a blade, if possible

MEDICATIONS USED IN TREATING CARDIOVASCULAR DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Anticoagulants (continued)				
Warfarin (continued)				5. Avoid alcohol and aspirin. Warfarin has many other drug interactions. Check with the doctor who monitors the warfarin therapy before starting or stopping any medication.
Aspirin	Anacin, Ecotrin, etc.	*See "Medications Used in Treating Muscular and Skeletal System Disorders"*		
Antihyperlipidemic Drugs (Cholesterol-Lowering Drugs)				
These drugs are most effective when used with a diet that is low in cholesterol and fat. Follow the diet that the doctor prescribes.				
Cholestyramine	Questran	Used to lower cholesterol; also used for some gastrointestinal conditions. It binds to certain substances in the gut. Since cholestyramine is not absorbed, these substances also pass out of the body without being absorbed.	**constipation**; nausea; vomiting; indigestion; gas; stomach pain; black, tarry stools	1. This medicine should never be taken in its dry form, since it could cause the person to choke. Mix the powder with 4-6 ounces of water or juice. The powder may also be mixed with milk in breakfast cereals, with thin soups, or with pulpy fruit (such as applesauce). 2. The person should drink plenty of fluid throughout the day to prevent constipation. **3. This drug may interfere with the absorption of other medicines. Generally take other medications either 1 hour before or 4-6 hours after the cholestyramine.**
Fluvastatin	Lescol	Lowers cholesterol by blocking an enzyme that is needed by the body to make cholesterol.	indigestion; nausea; diarrhea; stomach pain; gas; headache; back pain; **muscle pain**; joint pain	1. Notify the doctor of unexplained muscle pain, tenderness, or weakness, especially if accompanied by fever or general discomfort. 2. Dose is usually given in the evening.
Lovastatin	Mevacor			
Pravastatin	Pravachol			
Simvastatin	Zocor			
Gemfibrozil	Lopid	Used to lower cholesterol & triglycerides.	indigestion; stomach pain; diarrhea; nausea; tiredness; dizziness;	Notify the doctor of unexplained muscle pain, tenderness, or weakness, especially if accompanied by fever or general discomfort.
Niacin	Nicobid, Nicolar	Niacin is a vitamin supplement that is also used to decrease cholesterol.	nausea; bloating; gas; headache; flushing; tingling of arms/legs; dizziness or fainting, especially when getting up from a lying or sitting position; fast heart rate; rash; yellowing of skin or eyes;	1. Person may experience skin flushing & a sensation of warmth, especially of the face, neck, & ears. Itching, tingling, or headache may also occur. These effects are temporary and will gradually decrease with continued therapy. 2. Niacin may cause stomach upset. Take with food. 3. Do not crush or chew extended-release capsules or tablets.

RESPIRATORY

MEDICATIONS USED IN TREATING RESPIRATORY DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Bronchodilators				
Albuterol	Ventolin, Proventil, Proventil Repetabs	These medicines make breathing easier by widening the breathing passages of the lungs. Used for the treatment of asthma, chronic bronchitis, & other lung diseases Short-acting drugs in this class, usually albuterol, are also used for sudden breathing problems (acute attacks).	fast heart rate; heart palpitations; flushing of face; nausea; stomach upset; dry mouth; coughing; nervousness; hyperactivity; headache; difficulty sleeping; dizziness; tremor; sweating; difficulty urinating	1. **Aerosol**: Shake well before each use. Do not spray in eyes. If the dose requires more than than 1 inhalation (puff), wait at least 1 minute between inhalations. Follow the specific instructions that accompany the inhaler. 2. **Tablets**: Do not crush extended-release tablets or Repetabs. The tablet form of albuterol is more likely to cause side effects than the aerosol. 3. Serevent is used for long-term treatment of asthma, <u>not for acute attacks</u>. The person should have an albuterol or other short-acting bronchodilator inhaler for sudden breathing problems. 4. If the person has also been prescribed a steroid or ipratropium inhaler, the bronchodilator should be used first. This will help the steroid or ipratropium to reach the air passages. 5. Contact the doctor if the person does not get the usual relief from their normal dose.
Pirbuterol	Maxair			
Terbutaline	Brethaire, Brethine			
Salmeterol	Serevent			
Theophylline	TheoDur, Theo-24, Uniphyl, etc.	Bronchodilator used for long-term treatment of asthma, chronic bronchitis, & other lung diseases.	High levels can cause: nausea/vomiting, diarrhea, stomach pain, tremor, nervousness, headache, agitation, difficulty sleeping, fast heart rate, and seizures.	1. Avoid large amounts of caffeine-containing food (chocolate) or beverages (tea, coffee, cola). These may increase the side effects of theophylline. 2. Do not crush or chew extended-release tablets. Sprinkle capsules may be opened and the contents (beads) sprinkled on a small amount of food (such as applesauce); do not chew the beads. 3. Notify the doctor if the person shows symptoms of high levels. Observe the person carefully for these symptoms when starting new medications or stopping old medications (theophylline interacts with many drugs).

MEDICATIONS USED IN TREATING RESPIRATORY DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Anticholinergic Agents				
Ipratropium	Atrovent	Ipratropium makes breathing easier by widening the breathing passages of the lungs. Used for the long-term treatment of chronic bronchitis and other lung diseases. It is **not** used for emergencies.	dry mouth; nausea; stomach upset; cough; nervousness; dizziness; headache; blurred vision; difficulty sleeping; trembling; difficulty urinating; heart palpitations	1. Ipratropium can cause blurred vision if it is sprayed in the eye. The person should close their eyes while the treatment is being given. 2. Shake the canister well before use. Follow the specific instructions that accompany the inhaler.
Anti-Inflammatory Agents				
Beclomethasone	Vanceril, Beclovent, (oral inhalers); Beconase AQ, Vancenase AQ (nasal aerosol)	These medicines decrease inflammation. Uses: **Oral inhalation**: long-term treatment of asthma (not used for asthma attacks). **Nasal aerosol**: treatment of allergy symptoms including itching, runny nose, nasal congestion, & sneezing.	**Oral**: creamy, white, curd-like patches in the mouth or throat &/or pain when eating or swallowing (sign of infection); cough; hoarseness; dry mouth; nausea; headache. **Nasal**: burning or stinging inside the nose; nosebleeds; sores inside nose; dry nose; sore throat, white patches in nose/throat; sneezing.	1. **Oral**: Shake well before each use. Follow the specific instructions that accompany the inhaler. The person should rinse their mouth with water (& spit it out) after using the inhaler. This helps prevent infections and throat irritation. 2. **Nasal**: Shake well before each use. The person should blow their nose before using the aerosol. Follow the specific instructions that accompany the aerosol. 3. **Oral or Nasal:** Notify the doctor if the person has sores or white patches in the nose or mouth.
Triamcinolone	Azmacort (oral); Nasacort AQ (nasal)			
Flunisolide	AeroBid (oral); Nasalide (nasal)			
Cromolyn	Intal (oral), Nasalcrom (nasal)	Cromolyn is used to prevent asthma (oral inhaler) or allergy symptoms (nasal aerosol); it is not used to treat asthma attacks.	**Oral**: unpleasant taste; coughing; hoarseness; dry mouth; throat irritation; allergic reaction (swelling of lips, eyelids, or face; wheezing; trouble swallowing). **Nasal:** sneezing; nose irritation/burning; nosebleeds; allergic reaction.	1. **Oral**: Shake well before each use. Follow the specific instructions that accompany the inhaler. 2. **Nasal**: Shake well before each use. The person should blow their nose before using the aerosol. Follow the specific instructions that accompany the aerosol.

MEDICATIONS USED IN TREATING RESPIRATORY DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antihistamines				
Diphenhydramine	Benadryl, Nytol, etc.	Used for allergies, allergic reactions, and cold symptoms (sneezing, watery eyes, runny nose, etc.) Diphenhydramine is also used to treat the symptoms of Parkinson's Disease, the side effects of anti-psychotic drugs, & as a nighttime sleep aid. Cyproheptadine is also used as an appetite stimulant.	drowsiness; dizziness; thickening of bronchial secretions; headache; blurred vision; nervousness; stomach upset; dry mouth; constipation; difficult urination; dizziness, lightheadedness, or fainting when rising too quickly from a seated or lying position	These drugs will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person should not drink alcohol.
Chlorpheniramine	Chlor-Trimeton			
Cyproheptadine	Periactin			
Loratadine	Claritin	Used for relief of seasonal allergy symptoms.	drowsiness; headache; dry mouth; stomach upset; anxiety; fast heart rate	These medications cause less drowsiness that older antihistamines (see above). However, they could add to the effect of alcohol & other CNS depressants.
Fexofenadine	Allegra		drowsiness; stomach upset; menstrual cramps	
Cough/Cold Drugs				
Guaifenesin	Robitussin	Thins respiratory tract mucus so that it can be coughed up.	nausea; vomiting; drowsiness; headache; rash	Drink a glass of water or other fluid with each dose. Good fluid intake helps to thin respiratory tract mucus.
Dextromethorphan	Benylin DM, Robitussin DM*	Dextromethorphan is used to suppress nonproductive cough (no mucus production) associated with colds or allergy.	drowsiness; dizziness; stomach upset; constipation;	Dextromethorphan may interact with some drugs (such as anti-depressants & meperidine) to cause confusion, tremor, agitation, unsteadiness, fever, sweating, & diarrhea. Notify the doctor if these adverse effects occur.
Pseudoephedrine	Sudafed	Relieves nasal congestion due to colds, allergies, or sinus infections.	fast heart rate; heart palpitations; increased blood pressure; nervousness; dizziness; headache; difficulty sleeping; sweating; difficult urinatior	1. Do not crush sustained-release product. 2. Usually used for short-term treatment (3-5 days).
Phenylephrine	Neo-Synephrine	These are nasal sprays that relieve nasal congestion due to colds, allergies, or sinus infections.	burning or stinging in the nose; dry nose; sneezing; rebound nasal congestion with prolonged use; tremor; heart palpitations; nervousness.	These drugs should not be used for longer than 3-5 days. Long-term use can cause rebound congestion to occur when the dose wears off.
Oxymetazoline	Afrin			

*contains guaifenesin & dextromethorphan

GASTROINTESTINAL

MEDICATIONS USED IN TREATING GASTROINTESTINAL DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antacids				
Aluminum Hydroxide	Amphogel	Used to treat stomach upset due to excess acid, such as heartburn or indigestion. May also be used to treat the symptoms of stomach ulcers.	constipation; diarrhea; nausea; loss of appetite; muscle weakness; difficult or painful urination; mood or mental changes. Aluminum hydroxide causes more constipation. Magnesium hydroxide causes more diarrhea.	1. Shake liquid antacids well before each use. 2. Do not take antacids within 1-2 hours of taking other medications (antacids may keep other medicines from being absorbed). 3. Notify the doctor if the person vomits coffee-ground looking material or has black, tarry stools (may indicate bleeding in the stomach/intestine).
Aluminum & Magnesium Hydroxide	Mylanta, Maalox			
Antidiarrheal Agents				
Attapulgite	Kaopectate	Used to treat diarrhea.	constipation; fecal impaction	1. Notify the doctor if diarrhea is not controlled withi 48 hours. 2. Do not use if the person has a fever or blood/mucus in their stool. Contact the doctor. 3. Shake well before each use 4. Take other medicines at least 2 hours after attapulgite. Taking them at the same time could decrease the absorption of the other medicines.
Bismuth Subsalicylate	Pepto-Bismol	Used to treat diarrhea, nausea, and indigestion.	darkening of the tongue; gray-black stools; constipation; nausea; headache; confusion; ringing in the ears; weakness; allergic reaction (difficulty breathing, rash)	1. Notify the doctor if diarrhea is not controlled withi 48 hours or if the person has a high fever. 2. Do not use if the person is allergic to aspirin or cannot take aspirin for some other reason. 3. Shake liquid well before each use. Tablets should be chewed.
Diphenoxylate with Atropine	Lomotil	Used to treat diarrhea.	drowsiness; dry mouth; constipation; difficult urination; blurred vision; headache; confusion; difficulty breathing; fast heart rate; itching;	1. Notify the doctor if diarrhea is not controlled withi 48 hours or if the person has a high fever. 2. Do not use more than the prescribed dose. 3. This drug will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not** drink alcohol.
Loperamide	Imodium	Used to treat acute and chronic diarrhea.	drowsiness; dizziness; dry mouth; nausea; constipation; stomach cramps; rash	1. Notify the doctor if diarrhea is not controlled withi 48 hours or if the person has a high fever. 2. Do not use more than 8 capsules or 80ml in a 24 hour period.

MEDICATIONS USED IN TREATING GASTROINTESTINAL DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antiemetics				
Promethazine	Phenergan	Used to control nausea and vomiting. Also used for motion sickness.	drowsiness; dry mouth; thickening of bronchial secretions; headache; dizziness; restlessness; involuntary movements; easy bruising or bleeding; muscle ache; sore throat:	1. This drug can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm. 2. This drug will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not** drink alcohol. 3. Store suppositories in the refrigerator.
Antiulcer Agents				
Cimetidine Famotidine Nizatidine Ranitidine	Tagamet Pepcid Axid Zantac	This is a class of drugs known as "H2 blockers" & they decrease the of acid produced by the stomach. They are used to treat ulcers, heartburn, and other conditions caused by too much stomach acid.	dizziness; agitation; headache; confusion constipation; diarrhea; nausea; rash drowsiness	1. Do not take directly with antacids; separat doses by at least one hour. 2. Notify the doctor of any symptoms tha suggest a bleeding ulcer, such as: black, tarry stools; blood in the stool; vomiting blood; vomit that looks like coffee grounds; severe stomach pain; fainting; dizziness; shortness of breath. 3. Cimetidine has many drug interactions. Monitor the person for side effects from their other medications when cimetidine is started or stopped.
Lansoprazole Omeprazole	Prevacid Prilosec	This is a class of drugs known as "proton-pump inhibitors" & they decrease the amount of acid produced by the stomach. They are used to treat ulcers & gastroesophageal reflux disease (a condition in which the acid in the stomach washes back up into the esophagus).	headache; dizziness; nausea; diarrhea; stomach pain; constipation; rash; muscle or joint pain	1. Take before eating. 2. Generally, these drugs should be swallowed whole. However, the capsule can be opened and the pellets mixed with one tablespoon of applesauce or with a small amount of cranberry or orange juice. The mixture should be swallowed immediately. The pellets should not be chewed or crushed. 3. Notify the doctor of any symptoms that suggest a bleeding ulcer, such as: black, tarry stools; blood in the stool; vomiting blood; vomit that looks like coffee grounds; severe stomach pain; fainting; dizziness; shortness of breath.

MEDICATIONS USED IN TREATING GASTROINTESTINAL DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Laxatives				
Note: A proper diet containing roughage (whole grain breads and cereals, bran, fruit, and green leafy vegetables), with 6 to 8 full glasses of liquids each day, and daily exercise are most important in maintaining healthy bowel function.				
Bisacodyl	Dulcolax	These are stimulant laxatives that are used for the short-term treatment of constipation & to clean out the bowel before bowel exams or surgery.	stomach cramps; nausea; vomiting; diarrhea; dizziness; rectal burning;	1. Do not crush biscodyl tablets. 2. Laxative effect will be seen in 6-10 hours. 3. Long-term use of stimulant laxatives can result in laxative dependence or in an imbalance in fluid & electrolyte levels (symptoms--muscle cramps, weakness, dizziness). 4. Red-brown, pink-red, or red-violet discoloration of the urine may occur with Senna.
Senna	Senokot			
Docusate	Colace	Used to soften the stool so the person can have a bowel movement without straining.	diarrhea; stomach cramping; throat irritation (liquid form)	1. Do not crush capsules. The liquid can be given i milk or fruit juice to mask the bitter taste. 2. Do not use in the presence of abdominal pain, nausea, or vomiting.
Glycerin Suppositories	Babylax, Sani-Supp	Used for the treatment of constipation. Glycerin draws fluid into the bowel & stimulates evacuation.	irritation or bleeding in the rectal area; bowel cramps; nausea; diarrhea	1. Insert one suppository high in the rectum & retair for 15 minutes. Effects usually occur in 30 minutes. 2. Do not use in the presence of abdominal pain, nausea, or vomiting. 3. Store suppositories at room temperature.
Lactulose	Chronulac	Used for the treatment of constipation. It works by drawing fluid into the bowel. It is also used to reduce the amount of ammonia in	gas; diarrhea; stomach pain; nausea	1. Lactulose may be given "as is" or diluted with water, fruit juice, or milk. 2. Laxative results may not occur for 24-48 hours.
Magnesium Hydroxide	Milk of Magnesia	Used for the treatment of constipation. It works by drawing fluid into the bowel.	diarrhea; stomach cramping;	1. Shake well before each use. 2. Take with plenty of water. 3. Do not take at the same time with warfarin, digoxin, or certain antibiotics (cipro, tetracycline, etc.). 4. Notify doctor if symptoms of electrolyte imbalance occur (muscle cramps or pain, weakness, drowsiness, slowed breathing). 5. Laxative effects will be seen in 4-6 hours.

MEDICATIONS USED IN TREATING GASTROINTESTINAL DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Laxatives (continued)				
Magnesium Citrate	Citroma	Used for the short-term treatment of constipation or for evacuation of the bowel for surgical or diagnostic procedures. It works by drawing fluid into the bowel.	diarrhea; gas; stomach cramps;	1. Take with a glass of water or fruit juice. Chill before using to improve taste. 2. Effects will occur in 30 minutes to 3 hours. 3. Notify doctor if symptoms of electrolyte imbalance occur (muscle cramps or pain, weakness, drowsiness, slowed breathing).
Psyllium	Metamucil	A bulk-forming laxative used for the treatment of constipation. It may also be used for the treatment of diarrhea and high cholesterol.	stomach pain; bowel obstruction; gas; constipation; diarrhea	1. To allow psyllium to work properly & to prevent intestinal blockage, it is necessary to drink plenty of fluids during its use. Each dose should be mixed in a full glass (8 ounces) of water or fruit juice. Giving second glass of water or juice by itself will help avoid side effects. 2. Full effects may take 2-3 days.
Other Gastrointestinal Drugs				
Cisapride	Propulsid	Cisapride increases the movements or contractions of the stomach & intestines. Used for the treatment of gastroesophageal reflux disease (a condition in which the acid in the stomach washes back up into the esophagus).	headache; stomach cramps; diarrhea; gas; dry mouth; stuffy nose; difficulty sleeping; anxiety; rash	1. This drug is usually taken at least 15 minutes before meals & at bedtime. 2. Cisapride can cause fainting, dizziness, & irregular heartbeats when given with certain medications. Cisapride should not be given with erythromycin, clarithromycin (Biaxin), ketoconazole (Nizoral), itraconazole (Sporanox), fluconazole (Diflucan), indinavir (Crixivan) or ritonavir (Norvir). Check with the doctor if any of these are prescribed for a person on cisapride. 3. Shake the suspension well before each use.
Metoclopramide	Reglan	It increases the movements or contractions of the stomach & intestines. Used for the treatment of gastroesophageal reflux disease (a condition in which the acid in the stomach washes back up into the esophagus).	drowsiness; diarrhea; weakness; involuntary movements of the face, mouth, or limbs; trembling; restlessness; confusion; difficulty sleeping; depression; dry mouth; seizures	1. Metoclopramide is usually taken 30 minutes before meals & at bedtime. 2. Notify doctor if involuntary movements occur (such as chewing, lip-smacking, puffing of cheeks, grimacing, rapid blinking, etc.). 3. This drug will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not** drink alcohol.
Mesalamine	Asacol, Pentasa	Used to treat ulcerative colitis.	headache; stomach pain; cramps; gas; hair loss; rash; diarrhea;	Do not crush or chew sustained-release capsules or tablets.

MEDICATIONS USED IN TREATING GASTROINTESTINAL DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Other Gastrointestinal Drugs (continued)				
Sulfasalazine	Azulfidine	Used to treat ulcerative colitis.	dizziness; headache; diarrhea; nausea; vomiting; itching; rash; yellowing of the skin	1. Take after meals. Do not take with antacids. 2. May cause orange-yellow discoloration of the urine. 3. This drug can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm.
Simethicone	Gas-X, Phazyme	Used to relieve the painful symptoms & pressure of excess gas in the stomach.	No common or important side effects.	Shake drops well before each use. Tablets should be chewed thoroughly before swallowing.

ENDOCRINE

MEDICATIONS USED IN TREATING ENDOCRINE DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Androgens				
Testosterone	Delatestryl, Depo-Testosterone	This is a male hormone used to treat testosterone deficiency. It is sometimes used in women for breast cancer.	acne; pain at injection site; flushing; fluid retention; increased hair growth; nausea; aggressive behavior; headache; depression; sleeplessness	1. The doctor should be notified if the person has painful, prolonged erections. 2. Injections are given every 2-4 weeks.
Estrogens				
Conjugated Estrogens	Premarin	This is a female hormone used for replacement, usually after hysterectomy or during menopause.	swelling of hands, feet, or legs; breast enlargement or tenderness; menstrual changes; breast tumors; depression; nausea; headache	Estrogens can contribute to blood clot formation. Notify the doctor if the person has signs of a blood clot; they include: calf or groin pain (may be accompanied by swelling or warmth); extremity numbness or weakness; chest pain; shortness of breath; severe headache; change in vision or speech; abdominal pain.
Progestins				
Medroxyprogesterone	Provera, Depo-Provera	This is a hormone that is used orally to treat irregular menstrual flow & absence of menstrual flow. It is also used with estrogens in hormone replacement therapy. The injection is usually used to prevent pregnancy.	fluid retention; breakthrough bleeding; change in menstrual flow; absence of menstrual flow; depression; weakness; increased breast tenderness; pain at injection site	1. Progestins can contribute to blood clot formation. Notify the doctor if the person has signs of a blood clot; they include: calf or groin pain (may be accompanied by swelling or warmth); extremity numbness or weakness; chest pain; shortness of breath; severe headache; change in vision or speech; abdominal pain. 2. This drug can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm. 3. The oral tablets may be prescribed for only 5-10 days out of the month or they may be prescribed for daily use. Pay close attention to the doctor's directions for use. 4. The injection is usually given every 3 months.

MEDICATIONS USED IN TREATING ENDOCRINE DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Oral Contraceptives				
Ethinyl Estradiol & Norethindrone Ethinyl Estradiol & Levonorgestrel	Brevicon, Ortho-Novum, Tri-Norinyl Levlen, Tri-Levlen	Used to prevent pregnancy, to treat excessive or painful menstrual bleeding, or to treat endometriosis.	swelling of hands, feet, or legs; breast enlargement or tenderness; nausea; diarrhea; bloating; headache;	1. Contraceptives can contribute to blood clot formation. Notify the doctor if the person has signs of a blood clot; they include: calf or groin pain (may be accompanied by swelling or warmth); extremity numbness or weakness; chest pain; shortness of breath; severe headache; change in vision or speech; abdominal pain. 2. If oral contraceptives are taken to prevent pregnancy, additional protection should be used when taking anti-epileptic drugs and antibiotics. These drugs can decrease the effectiveness of oral contraceptives. 3. Check with doctor to determine how to handle a missed dose. If oral contraceptives are being used to prevent pregnancy, additional protection should be used during the rest of the month 4. This drug can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm.
Thyroid Hormone				
Levothyroxine	Synthroid, Levoxyl	Used to treat hypothyroidism (low thyroid hormone secretion).	Signs of too much thyroid hormone: nervousness; heart palpitations; hand tremor; sleeplessness; unsteadiness; weight loss; hair loss; changes in menstrual cycle; sweating	1. Dose should be taken at the same time each day, usually before breakfast. 2. Notify the doctor if the person has signs of too much thyroid hormone.

MEDICATIONS USED IN TREATING ENDOCRINE DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Antidiabetic Agents				
Insulin	Humulin	A hormone used to treat diabetes that is injected to lower blood sugar levels. It is used in people that cannot control their sugar levels with diet, exercise, or oral medicine. There are several types of insulin that act for different periods of time. Regular insulin (Humulin R) is short-acting. NPH (Humulin N) & Lente (Humulin L) are intermediate-acting. Ultra-lente (Humulin U) is long-acting. A mixture of regular and NPH insulin is also available (Humulin 70/30)	Signs of low blood sugar: anxious feeling; behavior change similar to being drunk; blurred vision; cold sweats; confusion; cool pale skin; difficulty in concentrating; headache; nausea; rapid heartbeat; shakiness; weakness Signs of high blood sugar: blurred vision; drowsiness; dry mouth; increased urination; unusual thirst; tiredness; nausea; change in appetite; sleepiness Other: thickening of the skin or depressed skin at the injection site	1. Administration of insulin & management of diabete requires extensive education by a trained health professional. 2. Symptoms of low blood sugar must recognized & treated immediately before they lead to unconsciousness (passing out). Fruit juice, non-diet soft drinks, glucose tablets, candy (not chocolate), or table sugar should always be available give to the person if they show signs of low blood sugar. 3. It is extremely important for the person to eat meals as scheduled and to follow their meal plan. Missing meals or scheduled snacks could cause low blood sugar. High blood sugar could result from not following dietar restrictions. 4. If signs of severe high blood sugar are present, the person requires **immediate hospitalization**. These include: flushed, dry skin; fruit-like breath odor; troubled breathing (rapid & deep); passing out. 5. Person **should not drink alcohol** (can cause low blood sugar). 6. Insulin should be stored in the refrigerator.
Glyburide	Diabeta, Glynase	These medicines are called "sulfonylureas" & stimulate the secretion of insulin from the pancreas. They are used to treat diabetes that does not require insulin.	Monitor for low or high blood sugar **(see above under insulin)**. Other adverse effects include: rash; itching; constipation; increased amount or frequency of urination; nausea; diarrhea; unusual bruising or bleeding;	1. See Items # 2, 3, & 4 above. 2 Person **should not drink alcohol** because it can cause flushing, headache, nausea, vomiting, fast heart rate, & sweating (in addition to low blood sugar).
Glipizide	Glucotrol			
Tolazamide	Tolinase			
Tolbutamide	Orinase			
Chlorpropropamide	Diabinese			

MEDICATIONS USED IN TREATING ENDOCRINE DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Steroids (oral)				
Prednisone	Deltasone	Used to decrease inflammation associated with arthritis, chronic respiratory problems, allergic reactions, and other inflammatory diseases.	nausea; vomiting; black, tarry stools, vomiting blood; indigestion; stomach pain; weight gain; swelling of the feet or legs; menstrual irregularities or pain; mental depression; confusion; puffy face	1. May cause stomach upset. Take medicine with food. 2. Steroids may lower resistance to infection. Check with the doctor as soon as possible if the person has signs of infection such as sore throat, fever, coughing, etc. 3. Steroids should not be stopped abruptly if the person has been taking them for a long time or in high doses. This can cause nausea, vomiting, diarrhea, weight loss, lack of appetite, weakness, and dizziness.
Prednisolone	Prelone; Delta-Cortef			
Methylprednisolone	Medrol			
Dexamethasone	Decadron			
Hydrocortisone	Cortef			
Triamcinolone	Aristacort			
Other Endocrine Agents				
Calcitonin (salmon)	Calcimar, Miacalcin	Used to treat osteoporosis & other bone diseases.	facial flushing; nausea; diarrhea; increased urination; swelling at injection site; nasal irritation (nasal spray only);	1. Calcitonin is available as an injection & as a nasal spray. A nurse must give the injection. The nasal spray should be administered according to the package insert. 2. Both the injection & the nasal spray should be stored in the refrigerator. Store the nasal spray in an upright position (do not allow it to lay on its side).
Etidronate	Didronel	Used to treat osteoporosis & other bone diseases.	fever; bone pain; nausea; diarrhea; metallic taste; rash; difficulty breathing;	Take with a full glass of water at least 2 hours before meals.

GENITO-URINARY

MEDICATIONS USED IN TREATING GENITOURINARY DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Urinary Muscle Relaxants				
Oxybutynin	Ditropan	Used to decrease muscle spasms of the bladder and the frequent urge to urinate caused by these spasms.	drowsiness; dry mouth; **constipation**; fast heart rate; dizziness; weakness; sleeplessness; decreased urination	1. This drug will add to the effects of alcohol & other CNS depressants (drugs that slow down the nervous system, possibly causing drowsiness). Person **should not** drink alcohol. 2. Use caution in hot weather. This drug can cause fever & heatstroke due to decreased sweating.
Cholinergic Agents				
Bethanechol	Urecholine	Helps to cause urination and emptying of the bladder.	stomach cramps; diarrhea; nausea; increased watering of mouth; sweating; flushed skin; difficulty breathing; dizziness, lightheadedness, or fainting, especially when rising too quickly from a seated or lying position	Should be taken 1 hour before or 2 hours after meals to avoid nausea and vomiting.
Urinary Tract Analgesics				
Phenazopyridine	Pyridium	Used for the short-term (2 days) relief of pain, burning, & frequent urination associated with urinary tract infections.	headache; dizziness; stomach cramps; rash	1. Take with food or after meals. 2. May cause urine to turn reddish-orange. May stain bedding or underwear.
Urinary Anti-infectives				
Nitrofurantoin	Macrodantin	Used for the prevention and treatment of urinary tract infections caused by certain bacteria.	rash; stomach upset; vomiting; diarrhea; loss of appetite; drowsiness; headache; dizziness; weakness; tingling/numbness of hands or feet; muscle ache; difficulty breathing; chest pain	1. Take with food or milk. 2. Antacids may decrease the absorption of nitrofurantoin. Do not give them at the same time. 3. May turn urine dark yellow or brown.
Vaginal Products				
Clindamycin	Cleocin	Used to treat certain vaginal bacterial infections.	rash; itching; local pain; vaginal yeast infection (thick, white vaginal discharge); diarrhea; stomach upset	1. Follow the administration directions & use the disposable applicators included in the package. 2. Use at bedtime. This will help keep the medicine in the vagina & reduce leaking. Wearing a sanitary napkin or mini-pad may prevent staining of clothing. Do not use tampons. 3. Avoid sexual intercourse during treatment.
Clotrimazole	Mycelex, Gyne-Lotrimin	Used to treat vaginal yeast infections.	local pain/burning; itching; rash; stomach cramps;	See special considerations for Clindamycin (above).
Miconazole	Monistat			

INFECTIOUS DISEASES

MEDICATIONS USED IN TREATING INFECTIOUS DISEASES

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Note: Immediate medical attention is required if the person has a severe allergic reaction. Also, notify the doctor as soon as possible if the person develops a				
Penicillins				
Penicillin	Pen Vee K	These are used to treat infections caused by certain bacteria. They work by killing the bacteria or preventing their growth.	diarrhea; allergic reaction (rash, difficulty breathing, or swelling of the face); nausea; stomach cramps; seizures;	1. Shake the suspension well before each use & store in the refrigerator. 2. Take at evenly spaced intervals throughout the day. Take with plenty of water. 3. Notify the doctor if severe diarrhea occurs. This could be a sign of a serious side effect.
Amoxicillin	Amoxil			
Ampicillin	Principen			
Dicloxacillin	Dynapen			
Amoxicillin & Clavulinic Acid	Augmentin			
Cephalosporins				
Cephalexin	Keflex	These are used to treat infections caused by certain bacteria. They work by killing the bacteria or preventing their growth.	diarrhea; allergic reaction (rash, difficulty breathing, or swelling of the face); nausea; stomach cramps; vaginal itching or discharge	1. Shake the suspension well before each use & store in the refrigerator (cefixime does not need to be refrigerated). 2. Take at evenly spaced intervals throughout the day. Take with plenty of water. 3. Notify the doctor if severe diarrhea occurs. This could be a sign of a serious side effect
Cefuroxime	Ceftin			
Cefaclor	Ceclor			
Cefixime	Suprax			
Macrolides				
Azithromycin	Zithromax	These are used to treat infections caused by certain bacteria. They work by killing the bacteria or preventing their growth.	diarrhea; stomach cramping; nausea; vomiting; allergic reaction (rash, difficulty breathing, or swelling of the face);	1. Shake the suspension well before each use & store in the refrigerator. 2. May take with food if stomach upset occurs. Take with plenty of water. 3. Take at evenly spaced intervals throughout the day. 4. Do not crush delayed release products. 5. Moderate diarrhea may occur. Notify the doctor if it is prolonged or severe.
Clarithromycin	Biaxin			
Erythromycin	Erythrocin, Ery-Tab, E.E.S., etc.			
Sulfonamides				
Trimethoprim & Sulfamethoxazole	Septra, Bactrim	Used to treat infections caused by certain bacteria. It is also used long-term to prevent urinary tract infections, pneumonia, & ear infections.	allergic reaction (rash, difficulty breathing, or swelling of the face); nausea; vomiting; loss of appetite; dizziness; fever; muscle & joint aching;	1. This drug can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm. 2. Notify the doctor if the person has redness, blistering, peeling, or loosening of the skin. Also, notify the doctor of severe or prolonged diarrhea. These could be signs of severe adverse reactions. 3. Take with a full glass (8 ounces) of water & the person should drink plenty of water throughout the day.

MEDICATIONS USED IN TREATING INFECTIOUS DISEASES

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Fluoroquinolones				
Ciprofloxacin	Cipro	These are used to treat infections caused by certain bacteria. They work by killing the bacteria or preventing their growth.	headache; restlessness; dizziness; nausea; diarrhea; stomach pain; allergic reaction (rash, difficulty breathing, or swelling of the face); seizures; pain in calves or heels	1. These drugs should be taken with a full glass (8 ounces) of water & the person should drink plenty of water throughout the day. 2. **These antibiotics should be given at least 2 hours before or 2 hours after the following** iron products, calcium supplements, zinc supplements, or multivitamins with minerals. **These antibiotics should be given at least 2 hours before or 4 hours after antacids or sucralfate.** These drugs can decrease the absorption of the antibiotics. 3. Fluoroquinolones can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm.
Levofloxacin	Levoquin			
Ofloxacin	Floxin			
Tetracyclines				
Tetracycline	Sumycin, Achromycin	These medicines are used to treat infections and to help control acne.	stomach cramps; diarrhea; nausea; headache; loss of appetite; dizziness allergic reaction (rash, difficulty breathing, or swelling of the face)	1. Should not be given to children less than 8 years old. 2. **All tetracyclines should be taken at least 1 hour before or 2-3 hours after the following:** calcium supplements, milk/dairy products, iron supplements, antacids, magnesium supplements/laxatives, multivitamins with minerals, or zinc supplements. These drugs could decrease the absorption of the antibiotics. 3. Tetracyclines can make the skin more sensitive to sunlight (causing rash, sunburn, itching). Person should stay out of direct sunlight, wear sun block (SPF 15 or higher), wear protective clothing, & wear sun block lip balm. 4. Tetracyclines should be taken with a full glass (8 ounces) of water to prevent irritation of the esophagus. The person should not lie down for at least 30 minutes after taking the medicine. 5. Do not used outdated (old) medicine. This could cause serious side effects
Doxycycline	Vibramycin			
Minocycline	Minocin			

MEDICATIONS USED IN TREATING INFECTIOUS DISEASES

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Other Antibiotics				
Clindamycin	Cleocin	Used to treat infections caused by certain bacteria.	diarrhea; nausea; vomiting; allergic reaction (rash, difficulty breathing, or swelling of the face)	1. Moderate diarrhea may occur. Notify the doctor if it is prolonged or severe. This could be a sign of a severe adverse reaction. 2. Take with a full glass (8 ounces) of water.
Metronidazole	Flagyl	Used to treat infections (usually in the abdomen).	dizziness; headache; nausea; diarrhea; unsteadiness; seizures; dry mouth; metallic taste; vaginal yeast infection; numbness or tingling in the arms or legs; allergic reaction (rash, difficulty breathing, or swelling of the face)	1. The person **should not drink alcohol** because it can cause flushing, headache, nausea, vomiting, fast heart rate, & sweating. 2. May turn the urine a dark or reddish-brown.
Nitrofurantoin	Macrodantin	*See "Medications Used in Treating Urinary Disorders"*		
Antituberculosis Agents				
Rifampin	Rifadin	Used to treat tuberculosis. May also be used for some other types of infections.	flushing; swelling; headache; nausea; stomach cramps; diarrhea; drowsiness; dizziness; numbness; itching; yellowing of skin or eyes; unusual bleeding or bruising;	1. This drug will cause the urine, tears, sweat, & other body fluids to turn reddish-orange. 2. Contents of capsule may be mixed with a small amount of applesauce or jelly. 3. Women on birth control pills should use additional means of birth control while taking this medication (also see under "Drugs Used to Treat Endocrine Disorders"). 4. The person **should not drink alcohol** while taking this medication.
Isoniazid (also called INH)	Laniazid	Used to treat or prevent tuberculosis.	dizziness; slurred speech; tiredness; yellowing of skin or eyes; seizures; rash; numbness or tingling in arms or legs	1. Notify the doctor if the person has yellowing of the skin/eyes, dark urine, tiredness, weakness, nausea, or vomiting. These could be signs of hepatitis. Also report any numbness or tingling in the arms or legs. 2. Do not take antacids within 1 hour of taking isoniazid. 3. May take with food if stomach upset occurs. 4. The doctor may prescribe Vitamin B6 to prevent some of the side effects of isoniazid. It is very important to take this every day.

EAR, EYE, & SKIN

MEDICATIONS USED IN TREATING EAR, EYE, SKIN DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Otic (Ear) Drugs				
Benzocaine/ Antipyrine	Auralgan	This product is used to relieve pain associated with ear infections. It is not used to treat the infection itself.	burning, itching, swelling, or redness of the ear; rash	1. The ear drops may be warmed by holding the bottle in the hand for a few minutes. **Do not** use other methods to heat the eardrops. This could cause injury.
Neomycin/ Polymixin/ Hydrocortisone	Cortisporin, Otocort, Pediotic, etc.	This is a combination product containing antibiotics & a steroid. It is used to treat some ear infections & relieve the swelling associated with the infection.		2. Do not allow the dropper to touch any surface (including the ear). This is to keep germs from getting into the ear drops.
Carbamide Peroxide	Debrox	Used to loosen & remove ear wax.	rash, itching, redness	1. See # 1& 2 above. 2. Notify the doctor if the person has dizziness or has ear pain, discharge/drainage, rash, or redness.
Triethanolamine	Cerumenex			3. Triethanolamine only--the usual administration is to fill the ear canal, insert a cotton plug, allow the medicine to remain in the ear for 15-30 minutes, & then flush the ear with lukewarm water.
Ophthalmic (Eye) Drugs				
Note: Wash hands before administration. Do not touch the applicator tip to any surface (including the eye). Replace the cap after using.				
White Petrolatum	Lacrilube	A lubricant used to prevent irritation & relieve dryness of the eye.	No common or important side effects.	Notify the doctor if the person has eye pain, change in vision, continued redness or irritation or if the condition worsens
Sulfacetamide	Bleph-10, Sulamyd	An antibiotic used to treat eye infections. It belongs to a class of drugs known as "sulfa drugs".	stinging or burning when applied; itching, redness, swelling or other signs of eye irritation; allergic reaction (rash, difficulty breathing, or swelling of the face);	1. Wait at least 10 minutes before using any other eye preparation. 2. Notify the doctor if the person has an allergic reaction, develops a rash, or if the condition does n improve in 3-4 days.
Neomycin/ Gramicidin/ Polymixin B	Neosporin Ophthalmic Drops	This is a combination of 3 antibiotics & it is used to treat eye infections.	rash, itching, redness, swelling or other signs of eye irritation; stinging or burning when applied	Notify the doctor if the person has an allergic reaction or if the condition does not improve in 3-4 days.
Prednisolone	PredForte	These drugs are steroids that are used to relieve redness, irritation, & swelling of the eyes.	blurred vision; burning, stinging, watering, or redness of the eyes; eye infection;	1. If using the suspension form, shake well before each use. 2. Notify the doctor if the eye condition does not improve after 5-7 days or if the condition worsens.
Dexamethasone	Decadron, Maxidex			
Fluorometholone	FML Forte			

MEDICATIONS USED IN TREATING EAR, EYE, SKIN DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Ophthalmic (Eye) Drugs (continued)				
Timolol	Timoptic	These drugs are in a class called "beta-blockers" & lower the pressure in the eyes. They are used to treat glaucoma.	**Eye:** redness of eyes; stinging in eyes or other signs of irritation when applied; increased sensitivity of eye to light; watery eyes; dry eyes; blurred vision; **Systemic:** slow heart rate; heart palpitations; chest pain; swelling of feet or lower legs; difficulty breathing; nervousness; dizziness; tiredness; headache; itching;	1. The person's eyes may become more sensitive to light. Wearing sunglasses & avoiding bright light may help. 2. In diabetics, these drugs can masksome of the signs of low blood sugar (such as fast heart rate & trembling) and change blood sugar levels. 3. The systemic adverse effects may be a sign that the body is absorbing too much drug. If the person experiences these effects, notify the doctor. 4. Apply gentle pressure to the inner corner of the eye with your finger for about 1 minute after instilling the eye drops. This decreases the systemic absorption.
Betaxolol	Betoptic			
Pilocarpine	Isopto-Carpine	Used to treat glaucoma.	**Eye:** blurred vision; decrease in night vision; eye irritation; eye pain; browache; headache; **Systemic:** increased sweating; muscle tremors; wheezing or difficulty breathing; watering of mouth; nausea; vomiting; diarrhea	1. The systemic adverse effects may be a sign that the body is absorbing too much drug. If the person experiences these effects, notify the doctor. 2. Apply gentle pressure to the inner corner of the eye with your finger for 1-2 minutes after instilling the eye drops. This decreases the systemic absorption.
Topical (Skin) Medication--General Information				
Use gloves when applying topical medications. Apply to clean, dry skin. These products are for external use only. Avoid contact with the eyes.				
Topical (Skin) Anti-infectives				
Neomycin/ Bacitracin/ Polymixin/	Neosporin Ointment	This is a combination of 3 antibiotics. The product is used to treat & prevent skin infections caused by bacteria.	itching; skin rash; redness; swelling;	1. Clean the affected area with soap & water and dry thoroughly (or clean the area according to the doctor's instructions) before using. 2. If the skin problem does not improve after 7 days or it gets worse, notify the doctor.
Clotrimazole	Lotrimin	This drug is used to treat fungal infections of the skin.	rash; hives; burning or stinging upon application; swelling, itching, redness, or other signs of skin irritation	Clean the affected area with soap & water and dry thoroughly (or clean the area according to the doctor's instructions) before using.

MEDICATIONS USED IN TREATING EAR, EYE, SKIN DISORDERS

EXAMPLES: GENERIC NAME	EXAMPLES: TRADE NAME	INDICATIONS/USE	MAJOR SIDE EFFECTS (Does not include all side effects)	SPECIAL CONSIDERATIONS
Topical (Skin) Steroids				
Hydrocortisone	Hytone	These drugs are used to relieve the redness, itching, & swelling associated with rashes and other skin conditions	dryness; irritation; burning; rash; skin thinning; streaks in skin; acne; impaired wound healing; For systemic side effects, see the steroid section of "Drugs Used to Treat Endocrine Disorders".	1. Apply sparingly & rub in gently. 2. Do not bandage or wrap the treated area unless directed by the doctor. 3. Do not use these drugs more often or for a longe time than ordered by the doctor. 4 The systemic adverse effects may be a sign that the body is absorbing too much drug. If the person experiences these effects, notify the doctor.
Triamcinolone	Kenalog			
Betamethasone	Diprosone, Valisone			
Other Topical (Skin) Drugs				
Permethrin	Elimite Cream, Nix Cream Rinse	The shampoo is used to treat head lice. The cream is used to treat scabies.	itching; redness; rash; burning; stinging; numbness or scalp discomfort	1. Follow the doctor's orders or the directions that accompany the product. 2. If treating head lice, all clothing, bedding, towels, & washcloths should be washed in hot water & dried using the hot cycle. Clothing or bedding that cannot be washed should be placed in an airtight plastic bag for 2 weeks. Thoroughly vacuum furniture, rugs, & floors. Wash all hairbrushes, combs, & toys in hot soapy water for 5-10 minutes. 3. Shake the liquid well before using.
Nystatin/ Triamcinolone	Mycolog	This is an antifungal & steroid combination product.	burning; dryness; itching; irritation; rash; skin thinning; streaks in skin; acne; impaired wound healing	1. Apply sparingly & rub in gently. 2. Do not bandage or wrap the treated area unless directed by the doctor. 3. Do not use these drugs more often or for a longe time than ordered by the doctor.

Appendix G

TITLE 21--FOOD AND DRUGS
CHAPTER II--DRUG ENFORCEMENT ADMINISTRATION DEPARTMENT OF JUSTICE
SUBCHAPTER L - REGULATIONS UNDER CERTAIN OTHER ACTS ADMINISTERED BY THE FOOD AND DRUG ADMINISTRATION

PART 1307 -- MISCELLANEOUS

Disposal of Controlled Substances

Sec. 1307.21 Procedure for disposing of controlled substances.

(a) Any person in possession of any controlled substance and desiring or required to dispose of such substance may request assistance from the Special Agent in Charge of the Administration in the area in which the person is located for authority and instructions to dispose of such substance. The request should be made as follows:

(1) If the person is a registrant, he/she shall list the controlled substance or substances which he/she desires to dispose of on DEA Form 41, and submit three copies of that form to the Special Agent in Charge in his/her area; or

(2) If the person is not a registrant, he/she shall submit to the Special Agent in Charge a letter stating:

(i) The name and address of the person;

(ii) The name and quantity of each controlled substance to be disposed of;

(iii) How the applicant obtained the substance, if known; and

(iv) The name, address, and registration number, if known, of the person who possessed the controlled substances prior to the applicant, if known.

(b) The Special Agent in Charge shall authorize and instruct the applicant to dispose of the controlled substance in one of the following manners:

(1) By transfer to person registered under the Act and authorized to possess the substance;

(2) By delivery to an agent of the Administration or to the nearest office of the Administration;

(3) By destruction in the presence of an agent of the Administration or other authorized person; or

(4) By such other means as the Special Agent in Charge may determine to

assure that the substance does not become available to unauthorized persons.

(c) In the event that a registrant is required regularly to dispose of controlled substances, the Special Agent in Charge may authorize the registrant to dispose of such substances, in accordance with paragraph (b) of this section, without prior approval of the Administration in each instance, on the condition that the registrant keep records of such disposals and file periodic reports with the Special Agent in Charge summarizing the disposals made by the registrant. In granting such authority, the Special Agent in Charge may place such conditions as he deems proper on the disposal of controlled substances, including the method of disposal and the frequency and detail of reports.

(d) This section shall not be construed as affecting or altering in any way the disposal of controlled substances through procedures provided in laws and regulations adopted by any State.

[36 FR 7801, Apr. 24, 1971, as amended at 37 FR 15922, Aug. 8, 1972. Redesignated at 38 FR 26609, Sept. 24, 1973, and amended at 47 FR 41735, Sept. 22, 1982; 62 FR 13967, Mar. 24, 1997]

TITLE 21
Food And Drugs

CHAPTER 21-28
Uniform Controlled Substances Act

ARTICLE 21-28-1.01
Short Title and Definitions

SECTION 21-28-1.01

§ 21-28-1.01 Short title and declaration. – (a) This chapter may be cited as the "Rhode Island Controlled Substances Act", and shall be so interpreted and construed as to effectuate its general purpose.

(b) The general purposes of this chapter are as follows:

(1) To establish a more rational system of regulating substances which may pose a danger to the public health;

(2) To create a system for classifying the substances relative to their abuse potential, their medical utility, and their likelihood of creating dependency;

(3) To fix penalties for the sale, possession, or manufacture of substances which are in proportion to their danger to the public health;

(4) To develop a system of tracing the flow of substances in commerce and in health as to prevent their improper diversion;

(5) To establish and define the powers of investigation, enforcement, and adjudication required to implement the above purposes; and to establish a system of substances control which is, to the extent possible, uniform with the laws of the United States and of its states.

§ 21-28-1.02 Definitions. – Unless the context otherwise requires, the words and phrases as defined in this section are used in this chapter in the sense given them in the following definitions:

(1) "Administer" refers to the direct application of controlled substances to the body of a patient or research subject by:

(i) A practitioner, or, in his or her presence by his or her authorized agent; or

(ii) The patient or research subject at the direction and in the presence of the practitioner whether the application is by injection, inhalation, ingestion, or any other means.

(2) "Agent" means an authorized person who acts on behalf of or at the direction of a manufacturer, wholesaler, distributor, or dispenser; except that these terms do not include a common or contract carrier or warehouse operator, when acting in the usual and lawful course of the carrier's or warehouse operator's business.

(3) "Apothecary" means a registered pharmacist as defined by the laws of this state and, where the context requires, the owner of a licensed pharmacy or other place of business where controlled substances are compounded or dispensed by a registered pharmacist; and includes registered assistant pharmacists as defined by existing law, but nothing in this chapter shall be construed as conferring on a person who is not registered as a pharmacist any authority, right, or privilege that is not granted to him or her by the pharmacy laws of the state.

(4) "Automated data processing system" means a system utilizing computer software and hardware for the purposes of record keeping.

(5) "Computer" means programmable electronic device capable of multi-functions, including, but not limited to, storage, retrieval, and processing of information.

(6) "Control" means to add a drug or other substance or immediate precursor to a schedule under this chapter, whether by transfer from another schedule or otherwise.

(7) "Controlled substance" means a drug, substance, or immediate precursor in schedules I – V of this chapter. The term shall not include distilled spirits, wine, or malt beverages, as those terms are defined or used in chapter 1 of title 3, nor tobacco.

(8) "Counterfeit substance" means a controlled substance which, or the container or labeling of which, without authorization bears the trademark, trade name, or other identifying mark, imprint, number, or device, or any likeness of them, of a manufacturer, distributor, or dispenser, other than the person or persons who in fact manufactured, distributed, or dispensed the substance and which thereby falsely purports or is represented to be the product of, or to have been distributed by, the other manufacturer, distributor, or dispenser, or which substance is falsely purported to be or represented to be one of the controlled substances by a manufacturer, distributor, or dispenser.

(9) "CRT" means cathode ray tube used to impose visual information on a screen.

(10) "Deliver" or "delivery" means the actual, constructive, or attempted transfer of a controlled substance or imitation controlled substance, whether or not there exists an agency relationship.

(11) "Department" means the department of health of this state.

(12) "Depressant or stimulant drug" means:

(i) A drug which contains any quantity of:

(A) Barbituric acid or derivatives, compounds, mixtures, or preparations of barbituric acid; and

(B) "Barbiturate" or "barbiturates" includes all hypnotic and/or somnifacient drugs, whether or not derivatives of barbituric acid, except that this definition shall not include bromides and narcotics.

(ii) A drug which contains any quantity of:

(A) Amphetamine or any of its optical isomers;

(B) Any salt of amphetamine and/or desoxyephedrine or any salt of an optical isomer of amphetamine and/or desoxyephedrine, or any compound, mixture, or preparation of them.

(iii) A drug which contains any quantity of coca leaves. "Coca leaves" includes cocaine, or any compound, manufacture, salt, derivative, mixture, or preparation of coca leaves, except derivatives of coca leaves, which do not contain cocaine, ecgonine, or substance from which cocaine or ecgonine may be synthesized or made.

(iv) Any other drug or substance which contains any quantity of a substance which the attorney general of the United States, or the director of health, after investigation, has found to have, or by regulation designates as having, a potential for abuse because of its depressant or stimulant effect on the central nervous system.

(13) "Director" means the director of health.

(14) "Dispense" means to deliver, distribute, leave with, give away, or dispose of a controlled substance to the ultimate user or human research subject by or pursuant to the lawful order of a practitioner, including the packaging, labeling, or compounding necessary to prepare the substance for that delivery.

(15) "Dispenser" is a practitioner who delivers a controlled substance to the ultimate user or human research subject.

(16) "Distribute" means to deliver (other than by administering or dispensing) a controlled substance or an imitation controlled substance and includes actual constructive, or attempted transfer. "Distributor" means a person who so delivers a controlled substance or an imitation controlled substance.

(17) "Downtime" means that period of time when a computer is not operable.

(18) "Drug dependent person" means a person who is using a controlled substance and who is in the state of psychic or physical dependence, or both, arising from the use of that controlled substance on a continuous basis. Drug dependence is characterized by behavioral and other responses, which include, but shall not be limited to, compulsion to take the substance on a continuous basis in order to experience its psychic or physical effect, or to avoid the discomfort of its absence.

(19) "Drug Enforcement Administration" means the Drug Enforcement Administration United States Department of Justice or its successor.

(20) "Federal law" means the Comprehensive Drug Abuse Prevention and Control Act of 1970, (84 stat. 1236)(see generally 21 U.S.C. § 801 et seq.), and all regulations pertaining to that federal act.

(21) "Hardware" means the fixed component parts of a computer.

(22) "Hospital" means an institution as defined in chapter 17 of title 23.

(23) "Imitation controlled substance" means a substance that is not a controlled substance, which by dosage unit, appearance (including color, shape, size, and markings), or by representations made, would lead a reasonable person to believe that the substance is a controlled substance and, which imitation controlled substances contain substances which if ingested, could be injurious to the health of a person. In those cases when the appearance of the dosage unit is not reasonably sufficient to establish that the substance is an "imitation controlled substance" (for example in the case of powder or liquid), the court or authority concerned should consider, in addition to all other logically relevant factors, the following factors as related to "representations made" in determining whether the substance is an "imitation controlled substance":

(i) Statement made by an owner, possessor, transferor, recipient, or by anyone else in control of the substance concerning the nature of the substance, or its use or effect.

(ii) Statements made by the owner, possessor, or transferor, to the recipient that the substance may be resold for substantial profit.

(iii) Whether the substance is packaged in a manner reasonably similar to packaging of illicit controlled substances.

(iv) Whether the distribution or attempted distribution included an exchange of or demand for money or other property as consideration, and whether the amount of the consideration was substantially greater than the reasonable value of the non-controlled substance.

(24) "Immediate precursor" means a substance:

(i) Which the director of health has found to be and by regulation designated as being the principal compound used, or produced primarily for use, in the manufacture of a controlled substance;

(ii) Which is an immediate chemical intermediary used or likely to be used in the manufacture of those controlled substances; and

(iii) The control of which is necessary to prevent, curtail, or limit the manufacture of that controlled substance.

(25) "Laboratory" means a laboratory approved by the department of health as proper to be entrusted with controlled substances and the use of controlled substances for scientific and medical purposes and for the purposes of instruction.

(26) "Marijuana" means all parts of the plant cannabis sativa L., whether growing or not; the seeds of the plant; the resin extracted from any part of the plant; and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds or resin, but shall not include the mature stalks of the plant, fiber produced from the stalks, oil or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of mature stalks, (except the resin extracted from it), fiber, oil or cake, or the sterilized seed from the plant which is incapable of germination.

(27) "Manufacture" means the production, preparation, propagation, cultivation, compounding, or processing of a drug or other substance, including an imitation controlled substance, either directly or indirectly or by extraction from substances of natural origin, or independently by means of chemical synthesis or by a combination of extraction and chemical synthesis and includes any packaging or repackaging of the substance or labeling or relabeling of its container in conformity with the general laws of this state except by a practitioner as an incident to his or her administration or dispensing of the drug or substance in the course of his or her professional practice.

(28) "Manufacturer" means a person who manufactures but does not include an apothecary who compounds controlled substances to be sold or dispensed on prescriptions.

(29) "Narcotic drug" means any of the following, whether produced directly or indirectly by extraction from substances of vegetable origin, or independently by means of chemical synthesis or by a combination of extraction and chemical synthesis:

(i) Opium and opiates.

(ii) A compound, manufacture, salt, derivative, or preparation of opium or opiates.

(iii) A substance (and any compound, manufacture, salt, derivative, or preparation of it) which is chemically identical with any of the substances referred to in paragraphs (i) and (ii) of this subdivision.

(iv) Any other substance which the attorney general of the United States, or his or her successor, or the director of health, after investigation, has found to have, and by regulation designates as having, a potential for abuse similar to opium and opiates.

(30) "Official written order" means an order written on a form provided for that purpose by the Drug Enforcement Administration under any laws of the United States making provision for an official form, if order forms are authorized and required by federal law, and if no order form is provided then on an official form provided for that purpose by the director of health.

(31) "Opiate" means any substance having an addiction-forming or addiction-sustaining liability similar to morphine or being capable of conversion into a drug having addiction-forming or addiction-sustaining liability.

(32) "Opium poppy" means the plant of the species papaver somniferum L., except the seeds of the plant.

(33) "Ounce" means an avoirdupois ounce as applied to solids and semi-solids, and a fluid ounce as applied to liquids.

(34) "Person" means any corporation, association, partnership, or one or more individuals.

(35) "Poppy straw" means all parts, except the seeds, of the opium poppy, after mowing.

(36) "Practitioner" means:

(i) A physician, osteopath, dentist, chiropodist, veterinarian, scientific investigator, or other person licensed, registered or permitted to distribute, dispense, conduct research with respect to or to administer a controlled substance in the course of professional practice or research in this state.

(ii) A pharmacy, hospital, or other institution licensed, registered or permitted to distribute, dispense, conduct research with respect to, or to administer a controlled substance in the course of professional practice or research in this state.

(37) "Printout" means a hard copy produced by computer that is readable without the aid of any special device.

(38) "Production" includes the manufacture, planting, cultivation, growing, or harvesting of a controlled substance.

(39) "Researcher" means a person authorized by the director of health to conduct a laboratory as defined in this chapter.

(40) "Sell" includes sale, barter, gift, transfer, or delivery in any manner to another, or to offer or agree to do the same.

(41) "Software" means programs, procedures and storage of required information data.

(42) "Ultimate user" means a person who lawfully possesses a controlled substance for his or her own use or for the use of a member of his or her household, or for administering to an animal owned by him or her or by a member of his or her household.

(43) "Wholesaler" means a person who sells, vends, or distributes at wholesale, or as a jobber, broker agent, or distributor, or for resale in any manner in this state any controlled substance.

TITLE 21
Food And Drugs

CHAPTER 21-28
Uniform Controlled Substances Act

ARTICLE 21-28-5.01
Powers of Enforcement Personnel

SECTION 21-28-5.07

§ 21-28-5.07 Disposition of controlled substances. – (a) Any person lawfully in possession of excess or undesired controlled substances shall dispose of the controlled substances in a manner established in regulation by the director which shall include, but not be limited to, requirements that the person shall keep a full and complete record of all controlled substances received and of all controlled substances disposed of, showing: (1) the exact kinds, quantities, and forms of the controlled substances; (2) the persons from whom received and to whom delivered; (3) by whose authority received, delivered, and destroyed; and (4) the date of the receipt, disposal or destruction, which record shall be open to inspection by all federal or state officers, including the director of health and the director's delegated personnel, charged with the enforcement of federal law or of this chapter.

(b) Controlled substances and imitation controlled substances seized by or in the possession of the Rhode Island state police shall be distributed or destroyed as provided by regulation. The superintendent of state police shall keep a full and complete record of all controlled substances received and of all controlled substances disposed of, showing: (1) the exact kinds, quantities, and forms of the controlled substances; (2) the persons from whom received and to whom delivered; (3) by whose authority received, delivered, and destroyed; and (4) the dates of the receipt, disposal, or destruction, which record shall be open to inspection by all federal or state officers charged with the enforcement of federal law or of this chapter.

(c) Controlled substances and imitation controlled substances seized by or in the possession of any municipal or state law enforcement agency other than the Rhode Island state police shall be distributed or destroyed as provided by regulation. The chief law enforcement official of each agency shall keep a full and complete record of all controlled substances received and of all controlled substances disposed of, showing: (1) the exact kinds, quantities, and forms of the controlled substances; (2) the persons from whom received and to whom delivered; (3) by whose authority received, delivered, and destroyed; and (4) the dates of the receipt, disposal, or destruction, which record shall be

open to inspection by all federal or state officers charged with the enforcement of federal law or of this chapter.

(d) The director of health or his or her designee is authorized: (1) to enter any premises where controlled substances are brought for disposal pursuant to this section; (2) to inspect any and all aspects of the disposal process and related records; and (3) to obtain and test samples of any and all controlled substances being processed for disposal for the purpose of determining compliance with state and federal law.

Appendix H

SPECIALIZED PROCEDURE

MONITORING BLOOD GLUCOSE USING A GLUCOSE METER

PURPOSE OF PROCEDURE

To monitor blood glucose (blood sugar) levels for people who have diabetes by using a drop of capillary blood and a glucose meter to obtain a reading of the glucose level.

THINGS TO REMEMBER

1. A drop of capillary blood is used to measure the person's blood glucose. This is obtained by using a disposable lancet (a small, sharp, pointed needle specifically made to obtain a drop of blood from a finger stick). ***Always handle the lancet carefully.***

2. Rotate the finger stick sites to avoid trauma to one area by repeatedly using the same site. Follow the site rotation chart in the person's specialized care plan.

3. ***Never take a blood sample from a finger that feels colder than the person's other fingers, or looks swollen and/or reddened. When in doubt, choose another site!***

4. ***Always check the calibration of the glucose meter*** according to the specific manufacturer's directions and the instructions given by the agency nurse before you obtain a blood glucose reading.

5. The frequency of blood glucose testing will be ordered by the licensed health care provider, and will be written in the person's specialized care plan. ***Always check the care plan and complete ALL of the tests as ordered.***

6. ***Always check the expiration date on the test strips. Never use test strips that are outdated.***

7. Protect the test strips from dampness and humidity. ***Never store the test strips in the bathroom and never store test strips in any container other than the original packaging supplied by the manufacturer.*** Replace the lid on the test strip bottle as soon as you remove a strip for testing.

8. Follow the manufacturer's directions and the instructions given by the agency nurse for the proper care and cleaning of the glucose meter.

EQUIPMENT

Gloves
Blood glucose meter
Testing strips
Disposable sterile lancet
Lancet holder (if applicable)
Alcohol wipes
Gauze pads
"Sharps" disposal container or other approved disposal system

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Gather all of the equipment that you will need. Calibrate the glucose meter and insert a test strip following the manufacturer's directions, and as instructed by the agency nurse.
3. Explain the procedure to the person.
4. Ask the person for whom you will be doing the procedure to ***wash his/her hands with warm soapy water and dry them well with a clean paper towel***. Assist the person to do this if he/she requires help.

5. ***Wash your hands and wear gloves.***
6. Clean the puncture site on the person's fingertip with an alcohol wipe and dry it thoroughly with a clean gauze pad.
7. Remove the lancet from the protective covering and place it in the lancet holder. ***Do not touch the tip of the lancet or allow it to come in contact with ANYTHING. If the lancet becomes contaminated, by touching your hand or ANY other surface, STOP IMMEDIATELY and change the lancet.***
8. If you are using a ***spring-loaded lancet*** (e.g., Autolet) or if the lancet is ***part of the glucose meter***, follow the manufacturer's directions and the instructions given by the agency nurse for using it properly.
9. Place the lancet on the ***SIDE*** of the person's fingertip. Pierce the skin quickly and sharply to obtain the blood sample. ***DO NOT pierce the tip of the person's finger. The stick will be more painful and you may not obtain enough blood to do the test.***
10. ***DO NOT squeeze the puncture site.*** Squeezing the site may cause fluid in the tissue to dilute the blood sample.
11. Put a drop of blood from the person's finger onto the correct spot of the test strip, covering the entire test area.
12. Using a clean gauze pad, briefly apply gentle pressure to the puncture site until the bleeding stops.

13. Wait the allotted time for the glucose meter that you are using (some take only seconds) and read the digital number displayed (the results of the test).
14. Initiate necessary actions as outlined in the person's specialized care plan for the specific blood glucose reading, e.g., "If blood glucose reading is below x, administer 4 ounces orange juice", or similar actions for hypo and hyper glycemic readings.

AFTER CARE

1. Discard the lancet according to your agency policy. ***NEVER LEAVE A LANCET UNATTENDED. DISPOSE OF IT IMMEDIATELY AFTER USE!***

2. Dispose of all other soiled supplies in the appropriate containers.
3. Remove your gloves and ***wash your hands.***
4. Document the following information in the person's record:
    a. The date and time that the test was done
    b. The blood glucose reading from the glucose meter
    c. The steps that were taken for a blood glucose reading that was too high or too low, e.g., notification of the nurse, and any instructions given by the nurse.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Monitoring Blood Glucose Using a Glucose Meter

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Calibrate the glucose meter and insert a test strip according to the manufacturer's instructions.		
3. Explain the procedure to the person.		
4. Ask the person to wash his/her hands with warm soapy water.		
5. Proper hand washing technique – wear gloves.		
6. Clean the puncture site w/ an alcohol wipe and dry w/ gauze pad.		
7. Remove lancet from protective covering and place in holder maintaining sterile		

technique.		
8. If using a spring loaded lancet, or if the lancet is part of the glucose meter, load it following manufacturer's instructions.		
9. Place the lancet on the side of the fingertip and pierce the skin quickly and sharply.		

10. DO NOT squeeze the puncture site.		
11. Place a drop of blood on the correct spot on the test strip, covering the entire area.		
12. Using clean gauze pad, briefly apply gentle pressure to puncture site.		
13. Wait the allotted time and read the digital number display of the results.		
14. Initiate necessary actions as outlined in person's specialized care plan for hypo and hyper glycemic readings.		
15. Proper disposal of lancet and other soiled supplies.		
16. Remove gloves ***and wash your hands.***		
17. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

Signature of Supervisor/Manager **Date**

Signature of Employee **Date**

SPECIALIZED PROCEDURE
COLOSTOMY CARE - CHANGING THE APPLIANCE

PURPOSE OF THE PROCEDURE

To prevent infection and skin breakdown around the colostomy site, and to maintain the integrity of the colostomy pouch for collecting fecal matter.

THINGS TO REMEMBER

1. A person who has a colostomy has a "stoma" located on his/her abdomen. A stoma is a surgically created opening to allow feces to be expelled from the body.

2. There are several different types of "pouch" bags/appliances; some are disposable and some are reusable. ***ALWAYS follow the instructions in the person's specialized care plan for the specific type of pouch/appliance being utilized.***

3. The pouch should be changed ***IMMEDIATELY*** if a leak develops.

4. The best time to change the pouch is when the bowel is "quiet" – usually 2 to 4 hours after meals.

5. The person may not be able to feel pain around the colostomy. ***ALWAYS clean the area gently and avoid fitting the pouch/appliance too tightly.*** If the pouch is too tight it can cause injury to the stoma or the surrounding skin.

6. If the person has a reusable pouch system, there should be 2 sets; alternating so that there is always a clean pouch available.

EQUIPMENT

Gloves

New pouch (disposable or reusable)

Closure clamp, if using a drainable pouch

Water or pouch cleaning solution for cleaning reusable pouch

Prescribed stoma powder, if applicable

Prescribed stoma paste

Prescribed skin prep wipes or spray, if applicable

Warm soapy water in a clean basin or bathroom sink

2 clean, soft washcloths

Soft toilet or facial tissues

Ostomy belt, if applicable

Impervious trash bag

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your equipment.
3. Explain the procedure to the person.
4. ***Wash your hands and wear gloves.***
5. Remove the old pouch and discard it properly (***refer to the agency policy for disposal of medical wastes in the home setting***) if using a disposable system. If it is a reusable pouch, place it in an appropriate container to be cleaned.
6. ***Gently*** wipe the stoma and the surrounding area with tissue to remove moist fecal material.
7. ***Gently*** wash the stoma and the surrounding skin with one clean washcloth, mild soap and ***warm*** water. Pat, do not rub, the area dry with the other

clean washcloth. ***Make sure that the skin is completely dry before continuing.*** The pouch will not adhere properly if the person's skin is wet.

8. Examine the stoma and the surrounding skin for any signs of irritation or skin breakdown.
9. Apply powder to stoma, if ordered by the person's licensed health care provider.
10. Apply skin prep spray or clean the area with skin prep wipes, if ordered by the person's licensed health care provider.
11. Apply stoma paste to the pouch and apply the pouch around the stoma, pressing gently to form a tight seal.
12. If using a drainable pouch, apply the closure clamp to the bottom of the pouch, following the instructions given by the agency nurse.
13. If the person uses an ostomy belt, attach the belt so that it fits securely but not tightly.

AFTER CARE

1. Dispose of all soiled supplies in the appropriate containers.
2. If the person has a reusable pouch, clean the pouch as instructed. Allow the pouch to air dry. When it is completely dry, store in an appropriate location.
3. Remove gloves ***and wash your hands.***
4. Document the following information in the person's record:
    a. The date and time the pouch was changed
    b. The color, amount, and consistency of the drainage
    c. The condition of the stoma and the surrounding skin – note any redness, irritation, or skin breakdown.
5. Follow the agency policy for notifying the nurse and documenting any instructions given by the nurse.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Colostomy Care – Changing the Appliance

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Remove old pouch and discard if using a disposable system. If it is a reusable pouch, place in an appropriate container for cleaning.		
5. Gently wipe the stoma with soft tissue to remove moist fecal matter.		
6. Gently wash the stoma and surrounding skin with warm soapy water.		

Rinse well and pat dry. ***Ensure that the area is completely dry before continuing.***		
7. Examine the stoma and surrounding skin for signs of irritation or skin breakdown.		

8. Apply powder to stoma, if ordered by the person's licensed health care provider.		
9. Apply skin prep spray or clean the area with skin prep wipes, if ordered by the person's licensed health care provider.		
10. Apply stoma paste to the pouch and apply the pouch around the stoma, ***pressing gently to form a tight seal.***		
11. If using a drainable pouch, apply the closure clamp to the bottom of the pouch.		
12. If using an ostomy belt, attach the belt so that it fits securely but not too tightly.		
13. Dispose of all soiled supplies in appropriate containers.		
14. If the person has a reusable pouch, clean as instructed. Allow the pouch to air dry & store appropriately.		
15. Remove gloves ***and wash your hands.***		

16. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
CPAP/BiPAP ADMINISTRATION

PURPOSE OF THE PROCEDURE

To create positive airway pressure to treat obstructive sleep apnea.

THINGS TO REMEMBER

1. ***Both CPAP and BiPAP are to be used by prescription only. The medical equipment vendor or respiratory therapist will pre-program the CPAP/BiPAP machine according to the licensed health care provider's prescribed levels. These settings should never be adjusted by anyone other than the licensed health care provider or respiratory therapist.***

2. A CPAP/BiPAP is a piece of electrical equipment and it should be inspected prior to each use:
    a. Always check to be sure that the power switch is off before plugging it into the wall outlet.
    b. Always inspect it carefully for nicks, dents, scratches or other damaged areas.
    c. ***Do not run the CPAP or BiPAP without a filter.***
    d. ***Avoid operating the CPAP or BiPAP in a dusty environment.***
    e. ***ALWAYS turn the CPAP/BiPAP off when not in use!***

3. The following emergency telephone numbers should be readily available:
    a. 911
    b. The agency nurse(s)
    c. The durable medical equipment vendor.

4. The mask must fit snugly to create a positive pressure system but keep in mind that moisture and pressure may cause skin breakdown under the facemask and/or straps on the mask. It is important to examine the person's skin frequently, keep it clean and dry and relieved of pressure.

5. To prevent infection, CPAP/BiPAP filters, mouthpiece, mask, headgear, and tubing should be inspected and cleaned daily, and replaced when dirty or contaminated with secretions.

EQUIPMENT

CPAP/BiPAP machine
Mask
Headgear
Distilled water
Cleaning solution
Gloves

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions regarding:***
   a) ***time of use; and,***
   b) ***humidification.***
2. Assemble all of your equipment, and fill the heated humidifier with distilled water if humidifier is required.
3. ***Wash your hands and wear gloves.***
4. Explain the procedure to the person.
5. Plug the CPAP/BiPAP into a 115V/60H wall outlet.
6. Connect the tubing from the CPAP/BiPAP machine to the mask set up.
7. Turn on the CPAP/BiPAP, and the heated humidifier (if a humidifier is being used).

8. Apply the mask on the person, or assist the person in applying the mask, and secure the headgear so that there are no leaks. If a leak occurs, readjust the mask and headgear.
9. ***If any problems occur with the equipment, STOP IMMEDIATELY and follow the agency's protocol for contacting the nurse.***

AFTER CARE

1. After using the CPAP/BiPAP equipment, wash and air dry the face mask and tubing, as instructed by the agency nurse.
2. Remove gloves and ***wash your hands!***
3. Document the procedure in the person's record, according to the instructions written in the person's specialized care plan.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

CPAP/BiPAP Administration

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment, filling heated humidifier with distilled water if humidifier is required		
2. Check the person's specialized care plan for specific instructions re: a) time of use b) humidification		
3. Explain the procedure to the person.		
4. Plug in the CPAP or BiPAP.		
5. Connect the tubing from the CPAP, BiPAP machine to the mask set up		
6. Turn on the CPAP/BiPAP and heated humidifier (if applicable).		
7. Apply the mask to the person and secure the headgear so that there are no leaks. If leaks occur, readjust the mask and headgear.		

8. Following use, wash and air dry face mask and tubing as instructed by the nurse.		
9. Document the procedure according to the instructions written in the person's specialized care plan.		

Competency Verification and Signatures

_____

Name/title of nurse assessing competency

_____ _____

Signature of nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

MHRH/DDD, OSARR, RIDDNA Training Workgroup

CPAP/BiPAP Treatment

February 23, 2004

SPECIALIZED PROCEDURE
GASTROSTOMY TUBE FEEDING

PURPOSE OF THE PROCEDURE

To provide hydration, nutrition, and medication through a surgical opening into the stomach when the person has difficulty swallowing and/or has an obstruction and is unable to have food or liquids by mouth.

THINGS TO REMEMBER

1. ***Commercial supplements should be refrigerated after opening***. Always check the expiration date on the supplement container and discard if expired.

2. If the supplement has been refrigerated, remove it from the refrigerator one half hour (½ hour) before the tube feeding is due to allow it to warm to room temperature before administering. ***Cold liquids may cause cramping.***

3. ***Never*** heat the supplement over direct heat or in the microwave.

4. ***Never administer hot liquids through a G tube!***

5. Special formulas or blender prepared nutrients may be administered at room temperature and discarded if not used within 24 hours.

6. Possible side effects of tube feedings include distention (swelling of the abdomen), vomiting, diarrhea, and constipation. Observe the person closely for any side effects and document your observations according to your agency policy.

7. ***If the person begins vomiting, gagging, or has ANY signs of pain or abdominal swelling, STOP THE FEEDING IMMEDIATELY AND FOLLOW YOUR AGENCY POLICY FOR CONTACTING THE NURSE.***

8. Medications may be administered through a G tube. Liquid medications are preferred. ***Enteric coated tablets and/or sustained-release medications should never be administered through a feeding tube!*** Flush the tubing with water to ensure that the full dose of medication has been administered.

SPECIALIZED PROCEDURE
GASTROSTOMY TUBE FEEDING

GASTROSTOMY TUBE (G tube) FEEDING METHODS

G TUBE/METHOD A Bolus Using a Bulb or Catheter-tip Syringe

EQUIPMENT

60 cc bulb or catheter-tip syringe

Graduated container

A clean glass or small bowl of water

Supplement or prepared formula

Clamp

Gloves

A towel to protect the person's clothing

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your equipment.
3. Assist the person to a sitting, or semi-sitting position and explain the procedure. Place a clean towel under the G tube to protect the person's clothing and/or bedding.
4. ***Wash your hands and wear gloves.***
5. Pinch or clamp the tube and then remove the cap or plug from the G tube.
6. Check for residual: Aspirate stomach contents with the 60 cc syringe by pulling back on the syringe ***slowly and gently until you meet resistance.*** Note the amount of the residual withdrawn by reading the numbers on the side of the syringe, and then ***gently*** inject the fluid back into the feeding tube. ***Do not discard this fluid!***

7. ***If the residual is greater than 100cc (or the amount specified by the person's licensed health care provider) STOP! Follow the instructions outlined in the person's specialized care plan.***
8. To prevent excess air from entering the stomach, always clamp off the G tube in between procedure steps.
9. Pinch or clamp the tube again, and remove the bulb or plunger from the syringe and re-attach the syringe to the G tube.
10. Fill the syringe with the prescribed supplement or prepared formula and release the G tube clamp to allow the formula to flow through. When the syringe is three-quarters empty, add more formula. The recommended rate is 200-350cc over 15 – 30 minutes, depending on the person's tolerance and the licensed health care provider's orders.

11. After administering the correct amount of supplement or prepared formula, flush the G tube with 50 – 60cc of water. This helps to keep the tube patent (open).
12. Pinch the tube, remove the syringe and re-insert the cap or plug into the opening of the G tube.
13. The person should remain in a sitting or semi-sitting position for at least 30 minutes.

AFTER CARE

1. Discard all soiled supplies in appropriate containers.
2. Thoroughly rinse all reusable equipment in warm water and wrap in a clean towel. Remove gloves and ***wash your hands!***
3. Document the following information in the person's record:
    a. Amount of aspirated residual
    b. Type and amount of formula used
    c. Medications administered (if applicable)
    d. Amount of water administered to flush the G tube

e. The person's response to the procedure
f. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.

4. Change equipment every 24 hours or according to your agency's policy.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Gastrostomy Tube Feedings

Method A – Bolus Feeding

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Person is in correct position – semi or high Fowler		
5. Pinch tube and remove cap or plug from G tube		
6. Aspirate for residual.		
7. Procedure if residual is greater than 100 cc		
8. Clamp off G tube and attach syringe to tube.		
9. Preparation of supplement including correct temperature.		

10. Correct administration of supplement and flushing of the G tube		
11. Reinsertion of G tube cap or plug.		
12. Person is in semi or high Fowler position for 30 minutes post procedure.		
13. Disposal of soiled supplies, and cleaning of equipment.		

14. Remove gloves ***and wash your hands.***		
15. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
GASTROSTOMY TUBE FEEDING

G TUBE/ METHOD B Gravity Drip Method

EQUIPMENT

60 cc bulb or catheter-tip syringe

Graduated container

A clean glass or small bowl of water

Supplement or prepared formula

Clamp

Gloves

A towel to protect the person's clothing

Tube feeding bag and tubing

Portable IV pole

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your equipment.
3. Assist the person to a sitting, or semi-sitting position and explain the procedure. Place a clean towel under the feeding tube to protect the person's clothing and/or bedding.
4. ***Wash your hands and wear gloves.***
5. Pinch or clamp the tube and then remove the cap or plug from the G tube.
6. Check for residual: Aspirate stomach contents with the 60 cc syringe by pulling back on the syringe ***slowly and gently until you meet resistance.*** Note the amount of the residual withdrawn by reading the numbers on the side of the syringe, and then ***gently*** inject the fluid back into the feeding tube. ***Do not discard this fluid!***

7. ***If the residual is greater than 100cc (or the amount specified by the person's licensed health care provider) STOP! Follow the instructions outlined in the person's specialized care plan.***
8. To prevent excess air from entering the stomach, always clamp off the G tube in between procedure steps.
9. Pour the prescribed amount of supplement or prepared formula into the feeding bag, hang the bag on the IV pole, and prime the tubing by opening the regulator clamp on the bag and allowing the supplement or formula to ***fill the tubing so that all of the air is purged from the tube.*** Once the tubing is completely primed, close the regulator clamp.
10. Attach the end of the feeding bag tubing to the G tube and release the G tube clamp.

11. Open the regulator clamp on the feeding bag and adjust the drip rate according to the instructions written in the specialized care plan. The recommended rate is 200-350cc over 15 – 30 minutes, depending on the person's tolerance and the licensed health care provider's orders.
12. Clamp the feeding bag tubing ***before*** it is completely empty to prevent air from entering the stomach.
13. After administering the correct amount of supplement or prepared formula, flush the G tube with 50 – 60cc of water. This helps to keep the tube patent (open).
14. Pinch the tube and re-insert the cap or plug into the opening of the G tube.
15. The person should remain in a sitting or semi-sitting position for at least 30 minutes.

AFTER CARE

1. Discard all soiled supplies in appropriate containers.

2. Thoroughly rinse all reusable equipment in warm water and wrap in a clean towel. Remove gloves and ***wash your hands!***
3. Document the following information in the person's record:
    a. Amount of aspirated residual
    b. Type and amount of formula used
    c. Medications administered (if applicable)
    d. Amount of water administered to flush the G tube
    e. The person's response to the procedure
    f. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.
4. Change equipment every 24 hours or according to your agency's policy.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Gastrostomy Tube Feedings

Method B – Gravity Drip

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Person is in correct position – semi or high Fowler		
5. Pinch tube and remove cap or plug from G tube		
6. Aspirate for residual.		
7. Procedure if residual is greater than 100 cc		
8. Clamp off G tube between steps.		
9. Preparation of supplement including correct temperature.		

10. Hang bag at correct height on IV pole, prime tubing.		
11. Attach feeding bag to G tube, and release clamp.		
12. Open regulator clamp and administer supplement. Adjust drip rate per specialized care plan.		

13. Clamp feeding bag before it is completely empty.		
14. Flush G tube w/ 50-60cc of water.		
15. Reinsert G tube cap or plug.		
16. Person is in semi or high Fowler position for 30 minutes post procedure.		
17. Disposal of soiled supplies, and cleaning of equipment.		
18. Remove gloves ***and wash your hands.***		
19. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

MHRH/DDD, OSARR, RIDDNA Training Workgroup

G/J tube Procedures

February 23, 2004

SPECIALIZED PROCEDURE
GASTROSTOMY TUBE FEEDING

G TUBE/ METHOD C ENTERAL PUMP FEEDING

EQUIPMENT

60 cc bulb or catheter-tip syringe

Graduated container

A clean glass or small bowl of water

Supplement or prepared formula

Clamp

Gloves

A towel to protect the person's clothing

Tube feeding bag and tubing

Enteral feeding pump

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure***.
2. Assemble all of your equipment.
3. Assist the person to a sitting, or semi-sitting position and explain the procedure. Place a clean towel under the G tube to protect the person's clothing and/or bedding.
4. **Wash your hands and wear gloves.**
5. Pinch or clamp the tube and then remove the cap or plug from the G tube.
6. Check for residual: Aspirate stomach contents with the 60 cc syringe by pulling back on the syringe ***slowly and gently until you meet resistance.*** Note the amount of the residual withdrawn by reading the numbers on the side of the

syringe, and then ***gently*** inject the fluid back into the feeding tube. ***Do not discard this fluid!***

7. ***If the residual is greater than 100cc (or the amount specified by the person's licensed health care provider) STOP! Follow the instructions outlined in the person's specialized care plan.***
8. To prevent excess air from entering the stomach, always clamp off the G tube in between procedure steps.
9. Pour the prescribed amount of supplement or prepared formula into the feeding bag, hang the bag at the appropriate height, and prime the tubing by opening the regulator clamp on the bag and allowing the supplement or formula to ***fill the tubing so that all of the air is purged from the tube.*** Once the tubing is completely primed, close the regulator clamp.
10. Carefully thread the feeding bag tubing through the Enteral Pump according to the manufacturer's directions, and instructions by the agency nurse.
11. Attach the end of the feeding bag tubing to the G tube and release the G tube clamp.
12. Set the flow rate according to the instructions written in the specialized care plan. The recommended rate is 200-350cc over 15 – 30 minutes, depending on the person's tolerance and the licensed health care provider's orders.
13. Open the regulator clamp on the tubing and begin the feeding.
14. Clamp the feeding bag tubing ***before*** it is completely empty to prevent air from entering the stomach.
15. After administering the correct amount of supplement or prepared formula, flush the G tube with 50 – 60cc of water. This helps to keep the tube patent (open).
16. Pinch the tube and re-insert the cap or plug into the opening of the G tube.

17. The person should remain in a sitting or semi-sitting position for at least 30 minutes.

AFTER CARE

1. Discard all soiled supplies in appropriate containers.
2. Thoroughly rinse all reusable equipment in warm water and wrap in a clean towel. Remove gloves and ***wash your hands!***
3. Document the following information in the person's record:
    a. Amount of aspirated residual
    b. Type and amount of formula used
    c. Medications administered (if applicable)
    d. Amount of water administered to flush the G tube
    e. The person's response to the procedure
    f. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.
4. Change equipment every 24 hours or according to your agency's policy.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Gastrostomy Tube Feedings

Method C – Enteral Pump

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Person is in correct position – semi or high Fowler		
5. Pinch tube and remove cap or plug from G tube		
6. Aspirate for residual.		
7. Procedure if residual is greater than 100 cc		
8. Clamp off G tube between steps.		
9. Preparation of supplement including correct temperature.		
10. Hang bag at correct height		

and prime the tubing.		
11. Thread feeding bag tubing through Enteral feeding pump. Attach end of feeding tube to G tube and release clamp.		
12. Set the flow rate per specialized care plan. Open regulator clamp - administer supplement.		

13. Clamp feeding bag before it is completely empty.		
14. Flush G tube w/ 50-60cc of water.		
15. Reinsert G tube cap or plug.		
16. Person is in semi or high Fowler position for 30 minutes post procedure.		
17. Disposal of soiled supplies, and cleaning of equipment.		
18. Remove gloves and **wash your hands.**		
19. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
JEJUNOSTOMY TUBE FEEDING

PURPOSE OF THE PROCEDURE

To provide hydration, nutrition, and medication through a surgical opening into the jejunum when the person has difficulty swallowing and/or has an obstruction and is unable to have food or liquids by mouth.

THINGS TO REMEMBER

1. ***NEVER use a Bolus Method for a J tube unless specifically ordered by the person's licensed health care provider!***

2. ***NEVER ASPIRATE A J TUBE FOR RESIDUAL!***

3. ***Commercial supplements should be refrigerated after opening***. Always check the expiration date on the supplement container and discard if expired.

4. If the supplement has been refrigerated, remove it from the refrigerator one half hour (½ hour) before the tube feeding is due to allow it to warm to room temperature before administering. ***Cold liquids may cause cramping.***

5. ***Never*** heat the supplement over direct heat or in the microwave.

6. ***Never administer hot liquids through a J tube!***

7. Special formulas or blender prepared nutrients may be administered at room temperature and discarded if not used within 24 hours.

8. Possible side effects of tube feedings include distention (swelling of the abdomen), vomiting, diarrhea, and constipation. Observe the person closely for any side effects and document your observations according to your agency policy.

9. ***If the person begins vomiting, gagging, or has ANY signs of pain or abdominal swelling**, STOP THE FEEDING IMMEDIATELY AND FOLLOW YOUR AGENCY POLICY FOR CONTACTING THE NURSE.*

10. Medications may be administered through a J tube. Liquid medications are preferred. ***Enteric coated tablets and/or sustained-release medications should never be administered through a feeding tube!*** Flush the tubing with water to ensure that the full dose of medication has been administered.

SPECIALIZED PROCEDURE
JEJUNOSTOMY TUBE FEEDING

JEJUNOSTOMY TUBE (J tube) FEEDING METHODS

J TUBE/ METHOD A Gravity Drip Method

NEVER use a Bolus Method for a J tube unless specifically ordered by the person's licensed health care provider!

NEVER ASPIRATE A J TUBE FOR RESIDUAL!

EQUIPMENT

60 cc bulb or catheter-tip syringe
Graduated container
A clean glass or small bowl of water
Supplement or prepared formula
Clamp
Gloves
A towel to protect the person's clothing
Tube feeding bag and tubing
Portable IV pole

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your equipment.
3. Assist the person to a sitting, or semi-sitting position and explain the procedure. Place a clean towel under the J tube to protect the person's clothing and/or bedding.

4. ***Wash your hands and wear gloves.***
5. Fill the syringe with a prescribed amount of water, as written in the specialized care plan.
6. Pinch or clamp the tube and then remove the cap or plug from the J tube.
7. Attach the syringe, unclamp the tube and ***slowly and gently*** inject the water into the J tube to flush it and check that it is patent (open). ***If you meet ANY resistance, STOP IMMEDIATELY, clamp the tube and follow your agency policy for notifying the nurse.***
8. To prevent excess air from entering the jejunum, always clamp off the J tube in between procedure steps.

9. Pour the prescribed amount of supplement or prepared formula into the feeding bag, hang the bag on the IV pole, and prime the tubing by opening the regulator clamp on the bag and allowing the supplement or formula to ***fill the tubing so that all of the air is purged from the tube.*** Once the tubing is completely primed, close the regulator clamp.
10. Attach the end of the feeding bag tubing to the J tube, and release the J tube clamp.
11. Open the regulator clamp on the feeding bag and adjust the drip rate according to the instructions written in the specialized care plan. The recommended rate is 200-350cc over 15 – 30 minutes, depending on the person's tolerance and the licensed health care provider's orders.
12. Clamp the feeding bag tubing ***before*** it is completely empty to prevent air from entering the jejunum.
13. After administering the correct amount of supplement or prepared formula, flush the J tube with 50 – 60cc of water. This helps to keep the tube patent (open).
14. Pinch the tube and re-insert the cap or plug into the opening of the J tube.

15. The person should remain in a sitting or semi-sitting position for at least 30 minutes.

AFTER CARE

1. Discard all soiled supplies in appropriate containers.
2. Thoroughly rinse all reusable equipment in warm water and wrap in a clean towel. Remove gloves and ***wash your hands!***
3. Document the following information in the person's record:
    a. Verification that the tube is patent
    b. Amount of water administered to flush the J tube before and after the feeding
    c. Type and amount of formula used
    d. Medications administered (if applicable)
    e. The person's response to the procedure
    f. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.
4. Change equipment every 24 hours or according to your agency's policy.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

JejunostomyTube Feedings

Method A – Gravity Drip

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation /Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Person is in correct position – semi or high Fowler		
5. Fill the syringe w/ a prescribed amount of water as per the specialized care plan.		
6. Slowly and gently inject water into J tube to flush. STOP immediately if any resistance.		
7. Clamp off J tube between steps.		
8. Preparation of supplement		

including correct temperature.		
9. Hang bag at correct height on IV pole, prime tubing.		
10. Attach feeding bag to J tube and release clamp.		

11. Open regulator clamp and administer supplement. Adjust drip rate per specialized care plan.		
12. Clamp feeding bag before it is completely empty.		
13. Flush J tube w/ 50-60cc of water.		
14. Reinsert J tube cap or plug.		
15. Person is in semi or high Fowler position for 30 minutes post procedure.		
16. Disposal of soiled supplies, and cleaning of equipment.		
17. Remove gloves ***and wash your hands***.		
18. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

Signature of Supervisor/Manager **Date**

Signature of Employee **Date**

JEJUNOSTOMY TUBE FEEDING

J TUBE/ METHOD B ENTERAL PUMP FEEDING

NEVER use a Bolus Method for a J tube unless specifically ordered by the person's licensed health care provider!

NEVER ASPIRATE A J TUBE FOR RESIDUAL!

EQUIPMENT

60 cc bulb or catheter-tip syringe

Graduated container

A clean glass or small bowl of water

Supplement or prepared formula

Clamp

Gloves

A towel to protect the person's clothing

Tube feeding bag and tubing

Enteral feeding pump

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure***.
2. Assemble all of your equipment.
3. Assist the person to a sitting, or semi-sitting position and explain the procedure. Place a clean towel under the J tube to protect the person's clothing and/or bedding.
4. ***Wash your hands and wear gloves.***
5. Fill the syringe with a prescribed amount of water, as written in the specialized care plan.
6. Pinch or clamp the tube and then remove the cap or plug from the J tube.
7. Attach the syringe, unclamp the tube and ***slowly and gently*** inject the

water into the J tube to flush it and check that it is patent (open). ***If you meet ANY resistance, STOP IMMEDIATELY, clamp the tube and follow your agency policy for notifying the nurse.***

8. To prevent excess air from entering the jejunum, always clamp off the J tube in between procedure steps.
9. Pour the prescribed amount of supplement or prepared formula into the feeding bag, hang the bag at the appropriate height, and prime the tubing by opening the regulator clamp on the bag and allowing the supplement or formula to ***fill the tubing so that all of the air is purged from the tube.*** Once the tubing is completely primed, close the regulator clamp.

10. Carefully thread the feeding bag tubing through the Enteral Pump according to the manufacturer's directions, and instructions by the agency nurse.
11. Attach the end of the feeding bag tubing to the J tube and release the J tube clamp.
12. Set the flow rate according to the instructions written in the specialized care plan. The recommended rate is 200-350cc over 15 – 30 minutes, depending on the person's tolerance and the licensed health care provider's orders.
13. Open the regulator clamp on the tubing and begin the feeding.
14. Clamp the feeding bag tubing ***before*** it is completely empty to prevent air from entering the stomach.
15. After administering the correct amount of supplement or prepared formula, flush the J tube with 50 – 60cc of water. This helps to keep the tube patent (open).
16. Pinch the tube and re-insert the cap or plug into the opening of the J tube.
17. The person should remain in a sitting or semi-sitting position for at least 30 minutes.

AFTER CARE

1. Discard all soiled supplies in appropriate containers.
2. Thoroughly rinse all reusable equipment in warm water and wrap in a clean towel. Remove gloves and ***wash your hands!***
3. Document the following information in the person's record:
    a. Verification that the tube is patent
    b. Amount of water administered to flush the J tube before and after feeding
    c. Type and amount of formula used
    d. Medications administered (if applicable)
    e. The person's response to the procedure
    f. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.
4. Change equipment every 24 hours or according to your agency's policy.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Jejunostomy Tube Feedings

Method B – Enteral Pump

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Person is in correct position – semi or high Fowler		
5. Fill the syringe w/ prescribed amount of water as per specialized care plan.		
6. Slowly and gently inject water into J tube to flush. STOP immediately if any resistance.		
7. Clamp off J tube between steps.		
8. Preparation of supplement		

including correct temperature.		
9. Hang bag at correct height and prime the tubing.		
10. Thread feeding bag tubing through Enteral feeding pump. Attach end of feeding tube to J tube and release clamp.		
11. Set the flow rate per specialized care plan. Open regulator clamp and administer supplement.		
12. Clamp feeding bag before it is completely empty and disconnect from J tube.		
13. Flush J tube w/ 50-60cc of water.		
14. Reinsert J tube cap or plug.		
15. Person is in semi or high Fowler position for 30 minutes post procedure.		
16. Disposal of soiled supplies, and cleaning of equipment.		
17. Remove gloves ***and wash your hands.***		
18. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
GASTROSTOMY OR JEJUNOSTOMY TUBES
Care and Cleaning of Tube Site

PURPOSE:

To maintain the integrity of the skin surrounding the G or J tube, and prevent infection and/or irritation at the site.

EQUIPMENT

Gloves

Warm water and antibacterial soap

Ointment (if prescribed)

Cotton tipped applicators

4x4 gauze pads

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure***.
2. Assemble all of your equipment.
3. Explain the procedure to the person.
4. ***Wash your hands and wear gloves!***
5. If there is a dressing around the G or J tube site, ***gently*** remove it. If there is dried drainage and the dressing is sticking to the site, pour a small amount of warm, soapy water on the dressing to loosen it. ***Never try to pull the dressing off if it is stuck to the skin or the tube – doing so may pull the tube out of its correct position***. Slowly and gently lift the dressing, adding more warm, soapy water as necessary until the dressing easily lifts off.
6. Wash around the G or J tube site using cotton tipped applicators and warm, soapy water. ***Make sure that you gently remove any crusted material that may be on the skin.*** Repeat this procedure 2 or 3 times, using a clean applicator each

time. ***Soap that is left on the skin may cause irritation.*** Make sure that you rinse the area well using warm water and gauze pads.

7. Using clean, dry cotton tipped applicators or gauze, gently dry the skin around the tube.
8. If ointment has been prescribed by the person's licensed health care provider, apply it with a cotton tipped applicator according to the instructions written in the person's specialized care plan. ***Never apply ointment or cream to the site unless it has been ordered by the person's licensed health care provider, or you have been instructed to do so by the agency nurse!***

9. Cover the site with a slit gauze dressing, or leave uncovered, according to the specific instructions in the person's specialized care plan.

AFTER CARE

1. Discard soiled supplies in appropriate containers.
2. Remove gloves and ***wash your hands!***
3. Document the following information in the person's record:
    a. The date and time the dressing was changed
    b. The name of the ointment (if any) applied to the site
    c. Any redness, drainage, bleeding, and/or skin breakdown, and how these findings were managed, e.g., notification of the agency nurse and any instructions given by the nurse.

Instructor's Notes:

MHRH/DDD, OSARR, RIDDNA Training Workgroup

G/J tube Procedures

February 23, 2004

COMPETENCY ASSESSMENT CHECKLIST

Gastrostomy and JejunostomyTubes

Care and Cleaning of Tube Site

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather all supplies.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Removal of dressing that has adhered to the site.		
5. Clean the area around the G or J tube.		
6. Apply ointment, if ordered.		
7. Apply dressing, if ordered.		
8. Discard soiled supplies.		
9. Remove gloves ***and wash hands.***		
10. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
ILEOSTOMY CARE – CHANGING THE APPLIANCE

PURPOSE OF THE PROCEDURE

To prevent infection and skin breakdown around the ileostomy site, and to maintain the integrity of the ileostomy pouch for collecting fecal matter.

THINGS TO REMEMBER

1. A person who has an ileostomy has a "stoma" located on his/her abdomen. A stoma is a surgically created opening to allow feces to be expelled from the body.

2. There are several different types of "pouch" bags/appliances; some are disposable and some are reusable. ***ALWAYS follow the instructions in the person's specialized care plan for the specific type of pouch/appliance being utilized.***

3. The pouch should be changed ***IMMEDIATELY*** if a leak develops.

4. The best time to change the pouch is when the bowel is "quiet" – usually 2 to 4 hours after meals.

5. The person may not be able to feel pain around the ileostomy. ***ALWAYS clean the area gently and avoid fitting the pouch/appliance too tightly.*** If the pouch is too tight it can cause injury to the stoma or the surrounding skin.

6. If the person has a reusable pouch system, there should be 2 sets; alternating so that there is always a clean pouch available.

EQUIPMENT

Gloves

New pouch (disposable or reusable)

Closure clamp, if using a drainable pouch

Water or pouch cleaning solution for cleaning reusable pouch

Prescribed stoma powder, if applicable

Prescribed stoma paste

Prescribed skin prep wipes or spray, if applicable.

Warm soapy water in a clean basin or bathroom sink

2 clean, soft washcloths

Soft toilet or facial tissues

Ostomy belt, if applicable

Impervious trash bag

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your equipment.
3. Explain the procedure to the person.
4. ***Wash your hands and wear gloves.***
5. Remove the old pouch and discard it properly (***refer to the agency policy for disposal of medical wastes in the home setting***) if using a disposable system. If it is a reusable pouch, place it in an appropriate container to be cleaned.
6. ***Gently*** wipe the stoma and the surrounding area with tissue to remove moist fecal material.

7. ***Gently*** wash the stoma and the surrounding skin with one clean washcloth, mild soap and ***warm*** water. Pat, do not rub, the area dry with the other clean washcloth. ***Make sure that the skin is completely dry before continuing.*** The pouch will not adhere properly if the person's skin is wet.
8. Examine the stoma and the surrounding skin for any signs of irritation or skin breakdown.
9. Apply powder to stoma, if ordered by the person's licensed health care provider.
10. Apply skin prep spray or clean the area with skin prep wipes, if ordered by the person's licensed health care provider.
11. Apply stoma paste to the pouch and apply the pouch around the stoma, pressing gently to form a tight seal.
12. If using a drainable pouch, apply the closure clamp to the bottom of the pouch, following the instructions given by the agency nurse.
13. If the person uses an ostomy belt, attach the belt so that it fits securely but not too tightly.

AFTER CARE

1. Dispose of all soiled supplies in the appropriate containers.
2. If the person has a reusable pouch, clean the pouch as instructed. Allow the pouch to air dry. When it is completely dry, store in an appropriate location.
3. Remove gloves ***and wash your hands.***
4. Document the following information in the person's record:
    a. The date and time the pouch was changed
    b. The color, amount, and consistency of the drainage

c. The condition of the stoma and the surrounding skin – note any redness, irritation, or skin breakdown and follow the agency policy for notifying the nurse and documenting any instructions given by the nurse.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Ileostomy Care – Changing the Appliance

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Remove old pouch and discard if using a disposable system. If it is a reusable pouch, place in an appropriate container for cleaning.		
5. Gently wipe the stoma with soft tissue to remove moist fecal matter.		
6. Gently wash the stoma and surrounding skin with warm soapy water.		

Rinse well and pat dry. ***Ensure that the area is completely dry before continuing.***		
7. Examine the stoma and surrounding skin for signs of irritation or skin breakdown.		
8. Apply powder to stoma, if ordered by the person's licensed health care provider.		

9. Apply skin prep spray or clean the area with skin prep wipes, if ordered by the person's licensed health care provider.		
10. Apply stoma paste to the pouch and apply the pouch around the stoma, **pressing gently to form a tight seal.**		
11. If using a drainable pouch, apply the closure clamp to the bottom of the pouch.		
12. If using an ostomy belt, attach the belt so that it fits securely but not too tightly.		
13. Dispose of all soiled supplies in appropriate containers.		
14. If the person has a reusable pouch, clean as instructed. Allow the pouch to air dry and store appropriately.		
15. Remove gloves ***and wash your hands.***		
16. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
MEDICATION VIA GASTROSTOMY TUBE

EQUIPMENT

Catheter- tip syringe

Clamp

Gloves

A clean glass or small bowl of water

Prescribed medication

PROCEDURE

1. ***Always check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your equipment.
3. Assist the person to a sitting, or semi-sitting position and explain the procedure. Place a clean towel under the G tube to protect the person's clothing and/or bedding.
4. **Wash your hands and wear gloves.**
5. Liquid medication is preferred for G tube administration. ***Some*** medications may be crushed and mixed with water prior to being administered through the G tube. ***ALWAYS check the person's specialized care plan AND medication sheet BEFORE administering the medication.***
6. ***NEVER insert whole tablets, caplets, or capsules into the G tube!***
7. ***NEVER crush enteric-coated or time-release medication. Crushing and administering this type of medication may cause serious harm to the person.***
8. ***ALWAYS compare the medication sheet with the label on the prescription bottle 3 times before administering the medication and follow all of the rules for appropriate medication administration.***

9. **If you are administering crushed medications**, prepare the medication by crushing the tablets or caplets thoroughly and completely (***the medication should be in powder form when you finish crushing it***) and mixing it with the amount of room temperature water or other fluid specified on the medication sheet.
10. **If you are administering medication from a capsule,** carefully open the capsule and mix the contents with the amount of room temperature water or other fluid specified on the medication sheet.

11. **If you are administering a liquid form of medication**, measure the prescribed amount of medication into a plastic medication cup and mix it with the amount of room temperature water or other fluid specified on the medication sheet.
12. Pinch or clamp the tube and then remove the cap or plug from the G tube.
13. Hold the G tube in an upright position and use the catheter-tip syringe to slowly instill 10cc of water (or amount specified on the medication sheet). If the G tube is patent (open) the water will flow in easily. ***If the water does not flow into the G tube, or if you meet any resistance while instilling the water, STOP the procedure, clamp the tube, and contact the agency nurse for further instructions.***
14. If the G tube is patent, pour the prescribed amount of medication into the syringe and allow it to slowly flow into the tube.
15. After the medication has been administered, flush the G tube with 30cc of water (or the amount specified on the medication sheet). This helps to keep the tube patent.
16. Pinch the tube, remove the syringe and re-insert the cap or plug into the opening of the G tube.
17. The person should remain in a sitting or semi-sitting position for at least 30 minutes.

AFTER CARE

1. Discard all soiled supplies in appropriate containers.
2. Thoroughly rinse all reusable equipment in warm water and wrap in a clean towel. Remove gloves and ***wash your hands!***
3. Sign the medication sheet indicating that the medication has been administered.
4. If the medication was not given, follow your agency's policy for documentation on the medication sheet and in the person's record.

5. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Medication via Gastrostomy Tube

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Person is in correct position – semi or high Fowler		

5. Compare medication sheet and label x3. Demonstrate compliance w/ rules of medication administration.		
6. Prepare medication: a) crushed meds b) capsules c) liquid meds		
7. Clamp off G tube and attach syringe to tube.		
8. Check patency of G tube. Flush G tube w/ prescribed amount of water.		
9. Administer medication.		
10. Flush G tube w/ prescribed amount of water.		
11. Reinsert G tube cap or plug.		
12. Person is in semi or high Fowler position for 30 minutes post procedure.		
13. Disposal of soiled supplies, and cleaning of equipment.		
14. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
MEDICATION VIA JEJUNOSTOMY TUBE

EQUIPMENT

Catheter- tip syringe

Clamp

Gloves

A clean glass or small bowl of water

Prescribed medication

PROCEDURE

1. ***Always check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your equipment.
3. Assist the person to a sitting, or semi-sitting position and explain the procedure. Place a clean towel under the J tube to protect the person's clothing and/or bedding.
4. **Wash your hands and wear gloves.**
5. Liquid medication is preferred for J tube administration. ***Some*** medications may be crushed and mixed with water prior to being administered through the J tube. ***ALWAYS check the person's specialized care plan AND medication sheet BEFORE administering the medication.***
6. ***NEVER insert whole tablets, caplets, or capsules into the J tube!***
7. ***NEVER crush enteric-coated or time-release medication. Crushing and administering this type of medication may cause serious harm to the person.***

8. ***ALWAYS compare the medication sheet with the label on the prescription bottle 3 times before administering the medication and follow all of the rules for appropriate medication administration.***
9. **If you are administering crushed medications**, prepare the medication by crushing the tablets or caplets thoroughly and completely (***the medication should be in powder form when you finish crushing it***) and mixing it with the amount of room temperature water or other fluid specified on the medication sheet.
10. **If you are administering medication from a capsule,** carefully open the capsule and mix the contents with the amount of room temperature water or other fluid specified on the medication sheet.
11. **If you are administering a liquid form of medication**, measure the prescribed amount of medication into a plastic medication cup and mix it with the amount of room temperature water or other fluid specified on the medication sheet.
12. Pinch or clamp the tube and then remove the cap or plug from the J tube.
13. Hold the J tube in an upright position and use the catheter-tip syringe to slowly instill 10cc of water (or amount specified on the medication sheet). If the J tube is patent (open) the water will flow in easily. ***If the water does not flow into the J tube, or if you meet any resistance while instilling the water, STOP the procedure, clamp the tube, and contact the agency nurse for further instructions.***
14. If the J tube is patent, pour the prescribed amount of medication into the syringe and allow it to slowly flow into the tube.
15. After the medication has been administered, flush the J tube with 30cc of water (or the amount specified on the medication sheet). This helps to keep the tube patent.
16. Pinch the tube, remove the syringe and re-insert the cap or plug into

the opening of the J tube.

17. The person should remain in a sitting or semi-sitting position for at least 30 minutes.

AFTER CARE

1. Discard all soiled supplies in appropriate containers.
2. Thoroughly rinse all reusable equipment in warm water and wrap in a clean towel. Remove gloves and ***wash your hands!***
3. Sign the medication sheet indicating that the medication has been administered.
4. If the medication was not given, follow your agency's policy for documentation on the medication sheet and in the person's record.
5. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Medication via Jejunostomy Tube

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Person is in correct position – semi or high Fowler		
5. Compare medication sheet and label x3. Demonstrate compliance with all rules of medication administration.		
6. Prepare medication: a) crushed meds b) capsules c) liquid meds		
7. Clamp off J tube and attach syringe to tube.		
8. Check patency of J tube. Flush J tube w/ prescribed amount of water.		
9. Administer medication.		
10. Flush J tube w/		

prescribed amount of water.		
11. Reinsert J tube cap or plug.		
12. Person is in semi or high Fowler position for 30 minutes post procedure.		
13. Disposal of soiled supplies, and cleaning of equipment.		
14. Documentation of the procedure.		

Competency Verification and Signatures

_____

Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
NEBULIZER ADMINISTRATION

PURPOSE OF THE PROCEDURE

To instill aerosolized medication

THINGS TO REMEMBER

1. Aerosolized medication may be provided to the person through a variety of devices, e.g., mouth piece, face mask, with or without oxygen supplement.

2. A nebulizer is a piece of electrical equipment and it should be inspected prior to each use:
    a. Always check to be sure that the power switch is off before plugging it into the wall outlet.
    b. Always inspect it carefully for nicks, dents, scratches or other damaged areas.
    c. ***Do not run the nebulizer without a filter***
    d. ***Avoid operating the nebulizer in a dusty environment***.

3. ***Aerosolized medication therapy must be ordered by the person's licensed health care provider. ALWAYS check the person's specialized care plan for instructions BEFORE administering the aerosol treatment. NEVER administer a nebulizer treatment to a person who does not have a specialized care plan unless specifically instructed to do so by the agency nurse.***

4. The licensed health care provider's order will describe the type of respiratory treatment, the amount of medication the person should receive, the frequency or duration of use, and the equipment necessary. ***ALWAYS administer the nebulizer treatment exactly as it is written in the person's specialized care plan.***

5. **ALWAYS** ***turn the nebulizer off when not in use!***

6. The following emergency telephone numbers should be readily available:
    a. 911
    b. The agency nurse(s)
    c. The durable medical equipment vendor.

7. Moisture and pressure may cause skin breakdown under the face mask and/or straps on the mask or mouthpiece. It is important to examine the person's skin frequently, keep it clean and dry and relieved of pressure.

8. In order to prevent infection, the nebulizer filter, mouthpiece, mask and tubing, should be inspected and cleaned daily and replaced when dirty or contaminated with secretions.

EQUIPMENT

Nebulizer machine
Face mask/Mouthpiece
Medication ampule
Cleaning solution
Gloves

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions about the delivery system, the liter flow rate, and the reasons for which the nebulizer may be used.***
2. Assemble all of your equipment.
3. Explain the procedure to the person.
4. ***Wash your hands and wear gloves.***

5. Administer the nebulizer treatment as follows:
    a. Place the device on a table so that the controls can be easily reached.
    b. Open the storage compartment door by lifting up the latch with your thumb and pulling out with your fingers.
    c. Remove the nebulizer, nebulizer face mask, and air tubing from the compartment.
    d. Connect one end of the tubing to the compressor air outlet.
    e. Connect the other end of the tubing to the nebulizer.
    f. Add the prescribed amount of liquid medication to the nebulizer according to the licensed health care provider's order, and screw the cover on tightly.
    g. Plug into a 115V/60H wall outlet.
    h. Press the power switch to "ON" to start the compressor.
    i. Apply the face mask to the person, or ask the person to press his/her lips tightly around the mouthpiece.
    j. As aerosol begins to flow, instruct the person to inhale deeply, slowly, and exhale through the mouth
        i. If a rest period is needed, place the nebulizer in the round holder located within the handle opening and turn the machine off;
        ii. If an excessive amount of coughing occurs, turn the compressor off or assist the person to turn the compressor off, and allow the person time to cough as needed. ***ALWAYS remember to complete the treatment once coughing has eased.***
        iii. Before storing supplies between treatments, clean and dry the nebulizer as instructed.

AFTER CARE

1. Discard soiled supplies in the appropriate containers.
2. Clean the nebulizer and tubing with the appropriate cleaning solutions, as instructed by the agency nurse.
3. Remove gloves ***and wash your hands.***
4. Document the following information in the person's record:

a. The date and time the nebulizer treatment was administered
b. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.

CLEANING OF NEBULIZER

1. Remove the nebulizer and mouthpiece from the tubing.
2. Disassemble the nebulizer chamber by turning counterclockwise and separating.
3. Fill two clean plastic containers or bowls as follows:
   a. Washing: Hot water and mild detergent solution
   b. Soaking: Hot water and vinegar solution (1 part vinegar to 3 parts water)
4. Thoroughly clean the nebulizer and mouthpiece in hot water/detergent solution.
5. Remove from the water/detergent solution and rinse with clear hot tap water.
6. Soak in hot water/vinegar solution for 30 minutes.
7. Rinse with hot tap water again and air dry thoroughly.
8. Keep the outer surface of the tubing dust free by wiping regularly with a clean, damp paper towel.
9. ***NOTE:*** the nebulizer air tubing does not have to be washed internally because only filtered air passes through the tubing.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Nebulizer Administration

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Check the person's specialized care plans for specific instructions re: a) medication to be used b) specific times of treatment c) any other reason(s) for which nebulizer may be used (if any)		
2. Gather all of the equipment and supplies needed: a) Compressor b) Nebulizer mask or handheld nebulizer c) Connection tubing d) Medication to be instilled e) Available power outlet		
3. Proper hand washing technique and wear gloves.		
4. Explain the procedure to the person.		
5. Place the compressor device on a table within easy reach.		
6. Connect one end of the connection tubing to the compressor air outlet.		
7. Add the prescribed amount of liquid medication to the handheld nebulizer and screw the cover on tightly.		
8. Connect the free end of the air tubing to the handheld nebulizer.		

9. Plug the compressor unit into a 115v/60H wall outlet.		
10. Press the power switch “ON” to start the compressor.		

11. Apply the face mask to the person or ask the person to press his/her lips tightly around the mouthpiece and inhale deeply and slowly through the mouth.		
12. If an excessive amount of coughing occurs, turn the compressor off or assist the person in turning the compressor off and allow the person to cough as needed. ***Always remember to complete the treatment once coughing has eased.***		
13. Following the administration of the nebulized medication, wash and store the supplies as instructed. Remove gloves ***and wash your hands.***		
14. Document the administration of the nebulized medication treatment as instructed.		

Competency Verification and Signatures

_____

Name/title of nurse assessing competency

_____ _____

Signature of nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

Signature of Employee **Date**

SPECIALIZED PROCEDURE
OXYGEN ADMINISTRATION

PURPOSE OF THE PROCEDURE

To prevent or reverse hypoxia (lack of sufficient oxygen) and to assist the person to breath more comfortably.

THINGS TO REMEMBER

1. Oxygen may be provided to the person through an oxygen mask or a nasal cannula.

2. Oxygen may be delivered through an oxygen concentrator or an E cylinder oxygen tank.
    a. ***An oxygen concentrator is the primary delivery system.*** The concentrator extracts oxygen from room air. Concentrators do not need to be filled with oxygen. Because an oxygen concentrator relies on electricity to power the compressor, a "back up tank" must always be available in case of a power failure
    b. An E cylinder tank is used only when the person is engaged in community activities outside of the home or day program. Tanks must be refilled/replaced by the durable medical equipment vendor. Follow your agency policy and always make sure that the tank is secured in the appropriate carrier when it is in use and when it is being stored.

3. ***Oxygen therapy must be ordered by the person's licensed health care provider. ALWAYS check the person's specialized care plan for instructions BEFORE administering the oxygen. NEVER administer oxygen to a person who does not have a specialized care plan unless specifically instructed to do so by the agency nurse.***

4. Some general signs and symptoms for the use of oxygen include:
    a. The person states that he/she cannot breath.

b. The person shows obvious signs of being short of breath, e.g., unable to speak, gasping for air, labored or difficult breathing patterns.
c. The person has cyanosis (bluish discoloration of the lips, nailbeds, arms/legs).
d. The person appears very fatigued.
e. The person appears confused or agitated.
f. Oxygen saturation level falls below a prescribed level as evidenced by pulse oximetry readings.

5. ***ALWAYS check the person's specialized care plan so that you know his/her "baseline", and how the person typically shows signs that he/she needs oxygen.***

6. The licensed health care provider's order will describe the type of oxygen therapy, the amount of oxygen the person should receive **(*"liter flow rate"*),** the frequency or duration of use, and the equipment necessary. ***ALWAYS administer the oxygen exactly as it is written in the person's specialized care plan.***

7. ***Oxygen promotes and feeds combustion. NEVER smoke or ignite a match when oxygen is in use. An OXYGEN IN USE/NO SMOKING sign must be posted in the home indicating that these activities are not permitted.***

8. ***To reduce the possibility of a spark ignition, non-electrical appliances should be substituted for electrical appliances, e.g., electric shavers, electric blankets.***

9. ***NEVER use oil, grease, aerosols, solvents, or alcohol near the oxygen source, valve or fittings.***

10. Static electricity in fabrics made of wool, silk, or synthetics can be reduced by using fabric softeners in the laundering or drying.

11. ***The oxygen source, e.g., the concentrator or cylinder should be kept a minimum of 15 feet AWAY from heat and direct sunlight. ALWAYS store the oxygen in a well ventilated area.***

12. ***AVOID*** bumping, dropping or puncturing the oxygen source.

13. **ALWAYS** ***turn the oxygen off when not in use! If using an oxygen concentrator, ALWAYS TURN THE OXYGEN OFF BEFORE unplugging the concentrator from the electrical socket.***

14. ***Remember – oxygen is colorless, odorless, and tasteless!***

15. The following emergency telephone numbers should be readily available:
    a. 911
    b. The agency nurse(s)
    c. The durable medical equipment vendor.

16. ***Water-soluble*** lubricant may be applied as needed to the person's lips and inside the opening of the person's nose. This will help to prevent dryness from use of the oxygen.

17. Moisture and pressure may cause skin breakdown under oxygen tubing and straps on the mask or cannula. It is important to examine the person's skin frequently, keep it clean and dry and relieved of pressure.

18. Oxygen delivery systems, e.g., mask or cannula, should be cleaned or replaced when dirty or contaminated with secretions in order to prevent infection.

19. If using a humidifier:
    a. The water should be replaced ***daily***, and/or anytime that the water is below the minimum level.

b. ***Always use sterile distilled water and replace the water in the humidifier. Adding clean water to the water that is already in the humidifier will encourage the growth of bacteria.***

c. The humidifier bottle should be cleaned or changed, at minimum, every two (2) weeks.

20. ***DO NOT use more than 50 feet of oxygen extension tubing connected to the oxygen concentrator or tank.***

EQUIPMENT

Oxygen source (concentrator, E cylinder tank, or nebulizer unit)

Oxygen delivery device, e.g., mask or cannula

Sterile distilled water

Humidity bottles and adapters, if applicable

Oxygen in Use/No Smoking signs

Cleaning solution

Gloves

PROCEDURE

1. ***Check the person's specialized care plan for specific instructions about the delivery system, the liter flow rate, and the reasons for which oxygen may be used.***
2. Assemble all of your equipment.
3. Explain the procedure to the person.
4. Post the ***Oxygen in Use/No Smoking*** signs.
5. Prepare the oxygen source: plug in the concentrator or break the seal on the E cylinder as instructed.
6. Connect humidifier onto tank outlet or concentrator outlet if humidifier is to be used.
7. Connect oxygen tubing to oxygen source. Check to make sure that the tubing is free of kinks.

8. Set the flow dial or flow meter at the correct liter flow rate, e.g., 2 liters per minute. ***ALWAYS check the person's specialized care plan for the liter flow rate that has been ordered by the person's licensed health care provider. NEVER change the liter flow rate unless specifically instructed to do so by the agency nurse.***
9. If a concentrator is being used, turn the power switch on and adjust the liter flow rate.
10. Apply the oxygen delivery device as follows:
    a. ***Nasal Cannula***
        i. Set the liter flow rate as ordered by the person's licensed health care provider.
        ii. ***Wash your hands and wear gloves***.
        iii. Place the prongs of the cannula in the person's nostrils with the flat surface against the skin.
        iv. If the prongs are curved, direct the curve downward toward the floor of the nostrils.
        v. Secure the cannula tubing over each ear and slide the adjuster under the chin to secure the tubing taking care to adjust it to a comfortable fit for the person. ***The cannula should fit snugly but not tightly***.
        vi. Clean the nasal cannula daily and as needed to clear secretions.
        vii. Oxygen is very drying so be sure to provide frequent mouth and nasal care. Lubricate the nose with ***water soluble*** lubricant as needed for dryness.

    b. ***Oxygen Mask***
        i. Set the liter flow rate as ordered by the person's licensed health care provider. ***The liter flow rate must be set at a minimum of 5 liters per minute when using ANY mask in order to flush out the carbon dioxide that occurs when the person exhales.***
        ii. ***Wash your hands and wear gloves.***

iii. Position the mask over the person's face covering the nose, mouth and chin so that a tight seal is formed. ***Without this seal, room air will dilute the oxygen.***

iv. Slip the loosened elastic strap over the person's head, positioning it above or below the ears.

v. Tighten the elastic strap so that the mask is snug ***but not uncomfortably tight***.

vi. ***Make sure that the oxygen is not blowing into the person's eyes.***

vii. Clean the mask daily and as needed to clear secretions (refer to "After Care" section for specific cleaning instructions).

AFTER CARE

1. Discard soiled supplies in the appropriate containers.
2. Clean the oxygen therapy equipment with the appropriate cleaning solutions, as instructed. Two sets should be used alternately with one being cleaned while the other is in use.
3. Remove gloves ***and wash your hands.***
4. Document the following information in the person's record:
    a. The date and time the oxygen was administered
    b. The reason(s) for administering the oxygen, and the length of time that it was used
    c. The person's response to the oxygen therapy
    d. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.

Instructor's Notes:

MHRH/DDD, OSARR, RIDDNA Training Workgroup

Oxygen Administration

February 23, 2004

COMPETENCY ASSESSMENT CHECKLIST

Oxygen (O_2) Administration

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. ***Check the person's specialized care plan for specific instructions re:*** ***a) delivery system*** ***b) liter flow rate*** ***c) reasons(s) for which oxygen may be used.***		
3. Explain the procedure to the person.		
4. ***Post the Oxygen in Use/No Smoking signs.***		
5. Prepare the oxygen source: plug in the concentrator or break the seal on the E cylinder.		
6. Connect humidifier onto tank outlet or concentrator outlet if used.		
7. Connect oxygen tubing to		

oxygen source. Check to make sure that the tubing is free of kinks.		
8. Set the flow dial or flow meter to the correct liter flow rate. ***Never change the liter flow rate unless specifically instructed to do so by the nurse.***		

9. If a concentrator is being used, turn the power switch on and adjust the liter flow rate.		
10. ***Oxygen delivery devices:*** ***A. Nasal Cannula*** a) Set the liter flow rate per the licensed health care provider's order in the specialized care plan. b) ***Wash hands and wear gloves.*** c) Place the prongs of the cannula in the person's nostrils with the flat surface against the skin. d) If the prongs are curved, direct the curve downward toward the flow of the nostrils. e) Secure cannula tubing over each ear and slide the adjuster under the person's chin to secure the tubing. ***The fit should be snug but not too tight.*** f) Clean cannula daily and as needed to clear secretions. g) Lubricate the nose with ***water soluble*** lubricant as needed for dryness.		

B. Oxygen Mask a) Set the liter flow rate per the licensed health care provider's order in the specialized care plan. ***The liter flow rate must be set at a minimum of 5 liters per minute to flush the carbon dioxide out of the mask.*** b) ***Wash hands and wear gloves.*** c) Position the mask over the person's face covering the nose, mouth, and chin so that a tight seal is formed. ***Without this seal, room air will dilute the oxygen.*** d) Slip the loosened elastic strap over the person's head and position it above or below the ears (depending on the person's preference). e) Tighten the elastic so that the mask is snug ***but not uncomfortably tight.*** f) ***Make sure that the oxygen is not blowing into the person's eyes.*** g) Clean the mask daily and as needed to clear secretions.		
11. Discard soiled supplies in appropriate containers.		

12. Clean oxygen therapy equipment with appropriate cleaning solution, as instructed.		
13. Remove gloves ***and wash your hands.***		
14. Documentation of the procedure.		

Competency Verification and Signatures

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Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
PULSE OXIMETRY

PURPOSE OF THE PROCEDURE

A non-invasive method to monitor arterial oxygen saturation.

THINGS TO REMEMBER

1. The index finger is most commonly used for testing pulse oximetry. Select a smaller finger if the person's index finger is too large for the pulse oximetry probe to be comfortably attached. ***DO NOT force the probe onto the person's finger***.

2. ***ALWAYS*** remove nail polish and make sure that the person's finger is clean and dry before attaching the probe.

3. Follow the manufacturer's directions, and the instructions from the agency nurse for recharging the batteries in the pulse oximeter.

4. Once the probe has been attached to the person's finger, ***position the person's hand at heart level to promote accurate readings***.

EQUIPMENT

Pulse oximeter with finger probe
Nail polish remover, if necessary
Alcohol wipes

PROCEDURE

1. Turn on the pulse oximeter and wait until the internal calibration is complete before using the equipment.
2. ***Check the person's specialized care plan for specific instructions <u>BEFORE</u> beginning the procedure.***

3. Explain the procedure to the person.
4. If the person is wearing nail polish, ***remove the polish from the finger that will be used for testing.***
5. Make sure that the finger being used for testing is clean and dry.
6. ***Wash your hands*** and attach the probe to the person's finger following the manufacturer's directions, and instructions from the agency nurse.
7. Allow several seconds for the pulse oximeter to detect the pulse and calculate the oxygen saturation.
8. Read the pulse rate and oxygen saturation level on the pulse oximeter digital display.

9. Remove the probe and turn off the pulse oximeter.
10. ***Follow the specific instructions in the person's specialized care plan, for reporting the results to the agency nurse***.

AFTER CARE

1. Document the following information in the person's record:
    a. The date and time that the procedure was completed
    b. The pulse rate and oxygen saturation level results that were obtained
2. Follow the agency policy for notifying the nurse with the results, and document any instructions given by the nurse.
3. Clean the probe gently with an alcohol wipe and store the oximeter in a safe and appropriate location; or if needed, plug the oximeter into an electrical socket to charge the batteries.

Instructor's Notes:

MHRH/DDD, OSARR, RIDDNA Training Workgroup

Pulse Oximetry

February 23, 2004

COMPETENCY ASSESSMENT CHECKLIST

Pulse Oximetry

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. ***Check the person's specialized care plan for specific instructions before beginning the procedure.***		
3. Explain the procedure to the person.		
4. Turn on the pulse oximeter and ***wait until the internal calibration is complete*** before beginning the procedure.		
5. If the person is wearing nail polish, remove the polish from the finger to be used for testing.		
6. Ensure that the finger being used for testing is clean and dry.		
7. Wash your hands and		

attach the probe to the person's finger, as per instructions.		
8. Allow ***several seconds*** for the pulse oximeter to detect pulse and calculate oxygen saturation.		

9. Read the pulse rate and oxygen saturation level on the digital display.		
10. Remove the probe and turn off the oximeter.		
11. ***Follow instructions in the person's specialized care plan for reporting results to the nurse.***		
12. Dispose of soiled supplies appropriately. Clean the oximeter with alcohol wipe and store in safe and appropriate location.		
13. If needed, plug pulse oximeter into electrical socket to charge batteries.		
14. Documentation of the procedure.		

Competency Verification and Signatures

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Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

Signature of Supervisor/Manager **Date**

Signature of Employee **Date**

SPECIALIZED PROCEDURE
SUPRAPUBIC (S/P) TUBE CARE

PURPOSE OF THE PROCEDURE

To aid in the prevention of bladder infection.

THINGS TO REMEMBER

1. A suprapubic (S/P) tube is a tube that enters the urinary bladder through the lower wall of the abdomen.

2. It is important to maintain the closed drainage system; separate the tubing only when necessary, e.g., changing the drainage bag. ***ALWAYS change the drainage bag if a leak or hole is noted.***

3. ***AVOID*** raising the drainage bag above the level of the person's bladder to prevent reflux of urine back into the tubing.

4. The S/P tube may be connected to a large drainage bag or a smaller leg bag. The leg bag allows for greater mobility for the person during the day but ***should not*** be used at night while the person is sleeping.

5. Check the tubing frequently for kinks and ***gently*** unwind the tubing if it does become kinked.

6. If the person's fluid intake ***is not restricted***, encourage him/her to drink adequate fluid every day. Generally, a person should drink at least 6-8 (8 ounce) glasses of water every day to maintain good hydration. ***ALWAYS check the person's specialized care plan to determine if his/her fluid intake is restricted.***

7. ***ALWAYS*** disengage the urine collection bag and the tubing from the bed sheets or bed frame ***BEFORE*** the person gets out of bed. ***Pulling on the S/P tube or drainage bag tubing may cause injury to the person***.

8. Routine care should include cleaning around the S/P tube area with mild soap and water at least once each day.

9. The catheter drainage bag should be cleaned or changed at regular intervals. ***Follow the cleaning instructions and schedule outlined in the person's specialized care plan for cleaning or changing the drainage bag.***

EQUIPMENT

Gloves

Clean basin or bathroom sink filled with warm soapy water

Clean, soft washcloth

Clean towel

Tape (use paper tape if the person has sensitive skin)

4x4 gauze pads, if applicable

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your equipment.
3. Explain the procedure to the person.
4. ***Wash your hands and wear gloves.***
5. Inspect the S/P tube for any problems, e.g., leaking, tearing, or encrusted drainage at the insertion point.
6. Inspect the urinary drainage for any mucous shreds, blood, clots, sediment, or cloudiness.

7. If there is a gauze slit dressing at the insertion site, remove it and discard appropriately.
8. ***Gently*** remove any tape securing the S/P tube.
9. Check the area around the S/P tube for any signs of redness, irritation, or skin breakdown.
10. ***Gently*** wash the S/P tube and the surrounding skin with warm soapy water. Rinse well and pat dry. ***DO NOT pull or tug on the S/P tube while cleaning.***
11. ***DO NOT apply any cream or ointment around the S/P tube unless specifically instructed to do so by the agency nurse.***
12. Apply tape to secure the S/P tube, if indicated in the person's specialized care plan.
13. Reapply slit gauze dressing, if indicated in the person's specialized care plan.
14. Provide enough slack before securing the S/P tube with tape to prevent tension on the tubing. ***If the tubing is stretched tightly it may cause injury to the person.***
15. ***Emptying the drainage bag:***
    a. Empty the bag at least every 8-12 hours or when the bag is one-half full.
    b. Remove the tube from the protective sleeve of the drainage bag. ***DO NOT touch the tip of the tube, or allow it to come in contact with any other surface!***
    c. Unclamp the tube and drain the urine from the bag into the toilet (with the seat up) or another appropriate container. ***DO NOT allow the tip or any part of the tubing to come in contact with the toilet seat, rim or water in the toilet bowl!***
    d. When the bag is empty re-clamp the drainage tubing.
    e. Place the tip of the tube back in the protective sleeve. ***DO NOT touch the tip of the tube, or allow it to come in contact with any other surface!***

AFTER CARE

1. Dispose of soiled supplies in the appropriate containers.
2. ***Remove gloves and wash your hands***.
3. Document the following information in the person's record:
    a. The date and time of the procedure
    b. The condition of the person's skin
    c. The amount and appearance of the urinary drainage.
4. Follow the agency policy, and the instructions in the person's specialized care plan, for notification of the nurse regarding any problems identified during the procedure.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Suprapubic (S/P) Tube Care

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Inspect the catheter for any problems, leaking, tearing, or encrusted drainage at the point of entry.		
5. Inspect the urinary drainage for mucous threads, blood, clots, sediment or cloudiness.		
6. Remove slit gauze dressing, if in place and discard appropriately.		
7. Remove any tape securing the S/P tube.		
8. Check the skin around the S/P tube for signs of		

redness, irritation, or skin breakdown.		
9. Wash the S/P tube and surrounding skin with warm soapy water. Rinse well and pat dry. ***NEVER pull or tug on the catheter while cleaning.***		

10. Apply ointment or cream, ***only if specifically instructed to do so by the nurse.***		
11. Apply tape to secure the S/P tube, if indicated in the person's specialized care plan. ***Provide enough slack before securing the S/P tube to prevent tension on the tubing.***		
12. Reapply slit gauze dressing, if indicated in the person's specialized care plan.		
13. ***Emptying the drainage bag:*** a) Empty bag every 8 to 12 hours or when it is one half full. b) Remove tube from protective sleeve of drainage bag. ***DO NOT touch the tip of the tube or allow it to come in contact with any other surface.*** c) Unclamp the tube and drain the urine from the bag into the toilet (seat up) or another appropriate container.		

14. When emptying the drainage bag ***DO NOT allow the tip or any part of the tubing to come in contact with the toilet seat, rim, or water in the toilet bowl.***		

15. When the bag is empty, re-clamp the drainage tubing.		
16. Place the tip of the tube back in the protective sleeve. ***DO NOT touch the tip of the tube or allow it to come in contact with any other surface.***		
17. ***Changing and Cleaning the drainage bag:*** Follow cleaning instructions and schedule outlined in the person's specialized care plan for cleaning/changing the drainage bag.		
18. Dispose of soiled supplies in appropriate containers.		
19. Remove ***gloves and wash hands.***		
20. Documentation of the procedure.		

Competency Verification and Signatures

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Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

Signature of Supervisor/Manager **Date**

Signature of Employee **Date**

SPECIALIZED PROCEDURE
URINARY CATHETER CARE

PURPOSE OF THE PROCEDURE

To aid in the prevention of bladder infection.

THINGS TO REMEMBER

1. It is important to maintain the closed drainage system; separate the tubing only when necessary, e.g., changing the drainage bag. ***ALWAYS change the drainage bag if a leak or hole is noted.***

2. ***AVOID*** raising the drainage bag above the level of the person's bladder to prevent reflux of urine back into the tubing.

3. Check the tubing frequently for kinks and ***gently*** unwind the tubing if it does become kinked.

4. If the person's fluid intake ***is not restricted***, encourage him/her to drink adequate fluid every day. Generally, a person should drink at least 6 to 8 (8 ounce) glasses of water every day to maintain good hydration. The person's urine should be light yellow and clear. ***ALWAYS check the person's specialized care plan to determine if his/her fluid intake is restricted.***

5. ***ALWAYS*** disengage the urine collection bag and the tubing from the bed sheets or bed frame ***BEFORE*** the person gets out of bed. ***Pulling on the catheter or tubing may cause injury to the person.***

6. Use of a leg bag allows greater mobility for the person during the day. The leg bag ***should not*** be used at night while the person is in bed.

7. Routine care should include cleaning the perineal area at least twice a day with mild soap and water. The anal area should be cleaned after each bowel movement.

8. The catheter drainage bag should be cleaned or changed at regular intervals. ***Follow the cleaning instructions and schedule outlined in the person's specialized care plan for cleaning or changing the drainage bag.***

EQUIPMENT

Gloves
Clean basin or bathroom sink filled with warm soapy water
Clean, soft washcloth
Clean towel
Tape (use paper tape if the person has sensitive skin)
Catheter strap, if applicable

PROCEDURE

1. ***Check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***
2. Assemble all of your supplies.
3. Explain the procedure to the person.
4. ***Wash your hands and wear gloves***.
5. Inspect the catheter for any problems, e.g., leaking, tearing, or encrusted drainage at the point of entry into the body.
6. Inspect the urinary drainage for any mucous shreds, blood, clots, sediment, or cloudiness.
7. Remove any tape or the catheter strap securing the catheter.

8. Check the skin for any signs of adhesive burns, such as redness, tenderness, or blisters. Check for any signs of skin breakdown.
9. ***Cleaning the perineum*** (the perineum is the external area between the vulva and the anus in a woman; or between the scrotum and the anus in a man):

    a. ***Gently*** wash the perineum with mild soap and warm water. Rinse the area well and pat dry.

        i. When cleaning the area for a woman – ***gently*** separate the labia and ***gently*** wash around the urethral opening. ***ALWAYS wash AWAY from the urinary opening not toward it – this helps to prevent infection.***

        ii. When cleaning the area for a man who has not been circumcised - ***gently*** retract the foreskin and wash the area by wiping away from the urinary opening. After washing, g***ently*** return the foreskin over the head of the penis.

        iii. When cleaning the area for a man who has been circumcised – ***gently*** wash the head of the penis by wiping away from the urinary opening.

        iv. ***Gently*** clean any encrusted material off the catheter. ***NEVER tug or pull on the catheter while cleaning.***

b. Secure the catheter with the catheter strap or tape the catheter to the person's thigh or side of the stomach, avoiding the area that has been previously taped. Provide enough slack before securing the catheter to prevent tension on the tubing. ***If the tubing is stretched tightly it may cause injury to the person.***

10. ***Emptying the drainage bag:***
    a. Empty the bag at least every 8-12 hours or when the bag is one-half full.
    b. Remove the tube from the protective sleeve of the drainage bag. ***DO NOT touch the tip of the tube, or allow it to come in contact with any other surface!***
    c. Unclamp the tube and drain the urine from the bag into the toilet (with the seat up) or another appropriate container. ***DO NOT allow the tip or any part of the tubing to come in contact with the toilet seat, rim, or water in the toilet bowl!***
    d. When the bag is empty re-clamp the drainage tubing.
    e. Place the tip of the tube back in the protective sleeve. ***DO NOT touch the tip of the tube, or allow it to come in contact with any other surface!***

AFTER CARE

1. Dispose of soiled supplies in the appropriate containers.
2. ***Remove gloves and wash your hands***.
3. Document the following information in the person's record:
    a. The date and time of the procedure
    b. The condition of the person's skin
    c. The amount and appearance of the urinary drainage
4. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Urinary Catheter Care

Agency: _____

Name of Employee: _____

Dates of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. Inspect the catheter for any problems, leaking, tearing, or encrusted drainage at the point of entry.		
5. Inspect the urinary drainage for mucous threads, blood, clots, sediment or cloudiness.		
6. Remove any tape or the catheter strap securing the catheter.		
7. Check the skin for any signs of adhesive burns, e.g., redness, tenderness,		

blisters.		

8. ***Cleaning the perineum:*** Wash with mild soap and warm water. Rinse the area well and pat dry. a) ***In a woman:*** separate the labia and wash around the urethral opening. Wash ***AWAY*** from the urinary opening.		
Cleaning the perineum: b) ***In an uncircumcised man:*** retract foreskin and wash area by wiping ***AWAY*** from the urinary opening. After washing, return foreskin over the head of the penis. c) ***In a circumcised man:*** Wash the head of the penis by wiping ***AWAY*** from the urinary opening.		
9. Clean any encrusted material off the catheter. ***NEVER pull or tug on the catheter while cleaning.***		
10. Secure catheter with the catheter strap, or tape catheter to the person's		

thigh or lower abdomen. ***Provide enough slack before securing the catheter to prevent tension on the tubing***.		

11. ***Emptying the drainage bag:*** a) Empty bag every 8 to 12 hours or when it is one half full. b) Remove tube from protective sleeve of drainage bag. ***DO NOT touch the tip of the tube or allow it to come in contact with any other surface.*** c) Unclamp the tube and drain the urine from the bag into the toilet (seat up) or another appropriate container.		
12. When emptying the drainage bag ***DO NOT allow the tip or any part of the tubing to come in contact with the toilet seat, rim, or water in the toilet bowl.***		
13. When the bag is empty, re-clamp the drainage tubing.		
14. Place the tip of the tube back in the protective sleeve. ***DO NOT touch the tip of the tube or allow it to come in contact with any***		

other surface.		

15. ***Changing and Cleaning the drainage bag:*** Follow cleaning instructions and schedule outlined in the person's specialized care plan for cleaning/changing the drainage bag.		
16. Dispose of soiled supplies in appropriate containers.		
17. Remove gloves ***and wash your hands***.		
18. Documentation of the procedure.		

Competency Verification and Signatures

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Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

SPECIALIZED PROCEDURE
UROSTOMY CARE – CHANGING THE APPLIANCE

PURPOSE OF THE PROCEDURE

To prevent infection and skin breakdown around the urostomy site, and to maintain the integrity of the urostomy pouch for collecting urine.

THINGS TO REMEMBER

1. A person who has a urostomy has a stoma. A stoma is a surgically created opening in the abdomen that allows urine to be expelled from the body.

2. There are several different types of urostomy appliances; some are disposable and some are reusable. ***ALWAYS follow the instructions in the person's specialized care plan for the specific type of pouch/appliance being utilized***.

3. If the person has a reusable pouch system, there should be 2 sets; alternating so that there is always a clean pouch available.

4. The appliance should be changed ***IMMEDIATELY*** if a leak develops.

5. The flow of urine through a urostomy is fairly constant since there is no sphincter muscle to control the flow. Urine may accumulate quickly and the pouch collecting it will become very heavy. ***To avoid having the weight of the urine loosen the seal around the stoma, empty the pouch when it is one-half full.***

6. To avoid having the pouch leak during the night, ***the appliance should be connected to a urinary drainage bag when the person is in bed***.

7. ***To prevent the flow of urine while you are changing the appliance, use an absorbent lint-free material such as a tampon or a piece of rolled cotton free gauze to temporarily absorb urine from the stoma***.

8. The urostomy appliance should be cleaned or changed at regular intervals. ***Follow the cleaning instructions and schedule outlined in the person's specialized care plan for cleaning or changing the appliance.***

EQUIPMENT

Gloves
Urine collection appliance (disposable or reusable)
Leg drainage bag, if applicable
Ostomy belt, if applicable
Warm soapy water in a clean basin
Plain warm water in a clean basin (for rinsing)
Skin barrier (may be in liquid, paste, or wafer form)
Stoma template (if using wafer skin barrier)
Scissors
Graduated cylinder (to measure urinary output)
2 Clean, soft washcloths
Absorbent ***lint free*** material such as a tampon or
piece of rolled ***cottonless*** gauze
4x4 gauze pads
Water or pouch cleaning solution (for cleaning reusable pouch)
Impervious trash bag

PROCEDURE

1. ***ALWAYS check the person's specialized care plan for specific instructions BEFORE beginning the procedure.***

2. Explain the procedure to the person.
3. ***Wash your hands and wear gloves.***
4. If using a wafer type skin barrier, cut a hole in the clean wafer by following the stoma template.
5. Open the drain clamp on the appliance and drain the urine into the graduated cylinder ***before*** removing the appliance.
6. To remove the appliance, apply soap and water or adhesive solvent as you ***gently push the skin away from the pouch. NEVER apply adhesive solvent directly to the stoma.***
7. If the appliance is disposable, discard it appropriately. If the person has a reusable appliance, place it in an appropriate container for cleaning.
8. Gently wash the stoma and surrounding skin with warm soapy water. Rinse well and pat dry with clean 4x4 gauze.
9. If there is adhesive remaining on the person's skin, ***gently rub*** with a dry gauze pad to remove.
10. If there is a flow of urine while you are cleaning the stoma, ***apply absorbent lint-free material such as a tampon or a piece of rolled cotton free gauze to temporarily absorb urine from the stoma.***
11. Examine the skin around the stoma for any signs of redness, irritation, or skin breakdown.
12. ***Apply the skin barrier as directed in the person's specialized care plan, and as instructed by the agency nurse***.
13. If you have used material to absorb urine flow while cleaning, remove it and discard appropriately.
14. Place the appliance over the stoma and secure as directed in the person's specialized care plan, and as instructed by the agency nurse.
15. If the person uses an ostomy belt, attach it to the appliance. Make sure

that the belt fits snugly but not tightly. ***The belt should be applied at the level of the stoma.***

16. If the person uses a leg bag, attach it to the appliance. Secure the leg bag strap to the person's leg. The strap should fit snugly but not tightly.

AFTER CARE

1. Dispose of all soiled supplies in the appropriate containers.
2. If the person has a reusable appliance, clean it following the instructions given by the agency nurse. Allow the appliance to air dry. When it is completely dry, store it in an appropriate location.
3. Remove gloves ***and wash your hands.***
4. Document the following information in the person's record:
    a. The date and time the appliance was changed
    b. The condition of the person's skin around the stoma
    c. The amount and appearance of the urinary drainage
5. If side effects or problems occurred, document how they were managed, e.g., notification of the nurse and any instructions given by the nurse.

Instructor's Notes:

COMPETENCY ASSESSMENT CHECKLIST

Urostomy Care – Changing the Appliance

Agency: _____

Name of Employee: _____

Date of Competency Assessment: _____

Skill/Procedure	Explanation/Demonstration	Satisfactory Return Demonstration
1. Gather and assemble equipment.		
2. Explain the procedure to the person.		
3. Proper hand washing technique – wear gloves.		
4. If using wafer type skin barrier, cut a hole in the clean wafer using stoma template.		
5. Open the drainage clamp on the appliance and drain urine into graduated cylinder before removing the appliance.		
6. Remove appliance by applying soap and water or adhesive solvent as you ***gently*** push the skin away from the pouch.		
7. If the appliance is		

disposable, discard it appropriately. If the appliance is reusable, place it in an appropriate container for cleaning.		
8. ***Gently*** wash the stoma and surrounding skin with warm soap and water.		

9. Rinse the area well and pat dry with clean 4x4 gauze pads.		
10. If there is a flow of urine while cleaning, use absorbent lint free material such as a tampon or rolled cottonless gauze to temporarily absorb urine.		
11. Examine the skin for signs of redness, irritation, or skin breakdown.		
12. Apply skin barrier per the person's specialized care plan.		
13. If you have used absorbent material to stop urine flow, remove it and discard appropriately.		
14. Place appliance over stoma and secure per the person's specialized care plan.		
15. Apply ostomy belt, if applicable.		
16. Apply leg bag, if applicable.		
17. Discard soiled supplies appropriately.		
18. If the appliance is reusable, clean per the person's specialized care		

plan. Allow to air dry and store in appropriate location.		
19. Remove gloves and **wash your hands.**		
20. Documentation of the procedure.		

Competency Verification and Signatures

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Name/title of Nurse assessing competency

_____ _____

Signature of Nurse assessing competency **Date**

_____ _____

Signature of Supervisor/Manager **Date**

_____ _____

Signature of Employee **Date**

Appendix I

8-3.1.11 Storage Requirements

8-3.1.11.1 Storage for nonflammable gases greater than 3000 cu. ft. ($85m^5$) shall comply with 4-3.1.1.2 and 4-3.5.2.2.

8-3.1.11.2 Storage for nonflammable gases less than 3000 cu. ft. ($85\ m^3$).

(a) Storage locations shall be outdoors in an enclosure or within an enclosed interior space of noncombustible or limited-combustible construction, with doors (or gates outdoors) that can be secured against unauthorized entry.
(b) Oxidizing gases, such as oxygen and nitrous oxide, shall not be stored with any flammable gas, liquid, or vapor.
(c) Oxidizing gases such as oxygen and nitrous oxide shall be separated from combustibles or incompatible materials by either:
    1. A minimum distance of 20ft. (6.1m); or
    2. A minimum distance of 5 ft. (1.5m) if the entire storage location is protected by an automatic sprinkler system designed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*; or
    3. An enclosed cabinet of noncombustible construction having a minimum fire protection rating of one-half hour for cylinder storage. An approved flammable liquid storage cabinet shall be permitted to be used for cylinder storage.
(d) Liquefied gas container storage shall comply with 4-3.1.1.2(b)4.
(e) Cylinder and container storage locations shall meet 4-3.1.1.2(a)11c with respect to temperature limitations.
(f) Electrical fixtures in storage locations shall meet 4-3.1.1.2(a)11d.
(g) Cylinder protection from mechanical shock shall meet 4-3.5.2.1(b)13.
(h) Cylinder or container restraint shall meet 4-3.5.2.1(b)27.
(i) Smoking, open flames, electric heating elements and other sources of ignition shall be prohibited within storage locations and within 20 ft. (6.1m) of outside storage locations.
(j) Cylinder valve protection caps shall meet 4-3.5.2.1(b)14.